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ABSTRACT

The papers in this volume represent revised versions of presentations made at the First Workshop on Yuman Languages held at the University of California, San Diego, June 17-21, 1975. The focus was on the area of syntax, where the least amount of published information had previously been available. Papers presented were: "Syntactic Diversity in Diegueno Dialects" (M. Langdon); "Diegueno Case Marking: Conditions of Optionality" (L. Gorbet); "The Cocopa Auxiliary Verb ya., 'be located,' 'happen'" (J. M. Crawford); "Oblique and Non-Oblique Surface Case in Kiliwa Syntax" (M. Mixco); "Yuman '*t'" (D. Crook); "The Reduction of idu: 'be' in Mohave" (J. C. Crawford); "Mojave Modals" (P. Munro); "The 'Say' Auxiliary in Maricopa: Some Notes and Speculations" (H. Harwell); "'Not,' in Yuman, I Say" (C. Slater); "Kwtsaan 'lyvii' as an Enclitic" (S. Norwood); "Internal and External Heads in Kwtsaan Relative Clauses" (B. Sundheim); "Havasupai Comparatives" (E. Kozlowski); "Yavpe Irrealis Constructions" (M. Kendall); "Compound Tense Markers in Tolkapaya" (S. Chung); "No More Schwa for Yavapai" (A. Shaterian); "Notes on Walapai Syntax: (J. Redden); "Some Notes on Paipai Object Order and Object-Marking" (J. Joel); and "Notes on the Interpretation of /-m/ and /-k/ in Walapai" (A. Yamamoto). (Author/CFM)

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PROCEEDINGS OF THE
FIRST YUMAN LANGUAGES WORKSHOP

by

James E. Redden, Editor

University Museum Studies

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Number 7

PROCEEDINGS

OF THE

FIRST YUMAN LANGUAGES WORKSHOP

JAMES E. REDDEN, EDITOR

HELD AT

UNIVERSITY OF CALIFORNIA, SAN DIEGO

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PREFACE

The study and analysis of Yuman languages in the last decade have drawn many researchers into a field where previously there had been only a half-dozen active workers. Much of the credit for encouraging the study of these languages must go to Margaret Langdon. Her efforts in finding funding for the Yuman Archives and two conferences on Hokan and Yuman languages have spurred many researchers to put forth determined efforts to describe these languages while speakers who really control these languages are still available for consultation. These conferences have been especially fruitful in permitting face-to-face study and discussion of mutual problems, and many insights into the analysis of Yuman languages have resulted from these discussions. All of us in the study of Hokan and Yuman languages are especially grateful to her for all she has done for the study of these languages.

Unfortunately, everyone who presented a paper at the First Yuman Languages Workshop was not able to prepare a final version for inclusion in this volume before it went to press. All the papers in this volume were presented in an earlier version at the Yuman workshop except the one by Yamamoto, who was unable to attend the workshop.

The papers are presented according to the groups of languages presented at the Yuman workshop. Since there were some last minute changes in the program, I must plead faulty memory if I inadvertently placed some papers in an order different from that of the workshop presentation.

James E. Redden
Carbondale, March 1976

INTRODUCTION

The papers in this volume represent revised versions of presentations made at the First Workshop on Yuman Languages held on the campus of the University of California, San Diego, June 17-21, 1975. The specific aim of the Workshop was to allow for close interaction between all linguists interested in the structure of Yuman languages and exchange of data. The focus was on the area of syntax, where the least amount of published information had previously been available, with emphasis more on the discussion of interesting problems than on theoretical agreement. New data were presented for all Yuman languages still spoken. The decision to make the results of the Workshop more generally available was unanimously supported by the participants. This volume then is offered in the hope that the syntactic patterns illustrated and described will be interest not only to other Hokanists but to students of syntax in general.

Thanks are due to James Redden for arranging the publication of this volume and assuming responsibility for all editorial details, and to the National Science Foundation for including support for consultants in Grant GSOC-7418043 (Yuman Languages of the Southwest--Margaret Langdon, Principal Investigator).

Margaret Langdon
La Jolla, January 1976.

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Syntactic Diversity in Diegueño Dialects

Margaret Langdon

University of California, San Diego

The purpose of this report is to present data relevant to the description of Diegueño syntax as well as to comparative Yuman syntax, in that the problems discussed are also known to have parallels in other Yuman languages. Unless otherwise specified, the data are from my own field notes, from Larry Gorbet's for the Imperial Valley dialect, and Leanne Hinton's for the La Huerta dialect, and are intended to supplement the descriptions in Langdon (1970), Gorbet (1974), Couro and Langdon (1975). The dialects surveyed are: Mesa Grande (MG), Barona (BA), Baron Long (BL), Campo (CA), Imperial Valley (IV), Jamul (JA), and La Huerta (LH). These form a dialect continuum which, for simplicity, may be diagrammed as follows, with the double line indicating the closer linguistic bond.

MG——BA——IV——BL——CA——JA——LH

'Iipay Kumeyaay Tiipay

The orthography used is the practical orthography of Couro and Hutcheson (1973) supplemented by the identification of syntactically relevant morpheme boundaries. Abbreviations used are as follows: 1,2,3 indicate the person of the subject or object prefixes, so that 1→2 means 'first person subject/second person object, dem(onstrative), sub(ject), Q(uestion), s(ame)s(ubject), d(ifferent)s(ubject), irr(ealis), pl(ural), im-(perative), rel(ativizer), em(phatic), d(ependent)f(uture).

1. The suffix -a

The standard use of this suffix in all dialects is to denote a question about non-immediately verifiable events, i.e. past or future, as opposed to another question construction which uses an optionally inflected cliticized form of the verb yuu 'be' as higher predicate following the questioned clause which in turn is marked with the 'same subject' marker -ch. Pairs of sentences illustrating the contrast are:

(1-MG) maa iinyawp-a (you get=lost-a) 'Did you get lost?' (e.g. on the way to my house, since you got here so late)
(2-MG) maa iinyawp-ch-me-yu (you get=lost-ss-2-be) 'Are you lost?' (e.g. to little boy crying)
(3-CA) hatt maa menye-hatt 'e-ttim-a (dog you your-pet 1-shoot-a) 'Did I shoot your dog?'
(4-CA) hatt maa menye-hatt 'e-ttim-ch-yu (dog you your-pet 1-shoot-ss-be) 'Is that your dog I shot?' (pointing at it)

The suffix -a normally appears on the verb, i.e. sentence final, with no intervening syntactic suffixes. In some dialects it may, however, appear on a nominal or after various morphemes typically marking some kind of embedding, including a -ch 'subject marker', possibly by analogy with the other question construction. Thus

(5-BA) Elinor-ve-ch-a (Elinor-dem-sub-Q) 'What about Elinor?'
(6-BL) 'iipach maalich 'ech-w-ii-ch-a (man what what-3-say-ss-Q) 'What did the man say?'

(7-JA) ma'ap-ch we-hap-ch-a (who-sub 3-enter-ss-Q) 'Who came in?'
(8-CA) 'enyaa-ch 'e-yiw-vek-a (I-sub 1-come-if?-Q) 'Can I come?'
(9-CA) 'enyaa-ch '-aakwayk 'e-yiw-h-keh-a (I-sub 1-return 1-come-irr-must-Q) 'Will I ever come back again?'

In several dialects, a sentence-final -a is associated also with strong assertions, often with emotional overtones. It can have negative emotional connotations, as in

(10-BA) siny cha'llich-a (woman ugly-a) 'What an ugly woman!'
(11-BA) mereyuy-a (ashamed-a) 'Shame on you.'
(12-CA) haakwal-a (lizard-a) 'A lizard (I hate them)'.
(13-CA) chichaallich-a (ugly=pl-a) 'Are they ever ugly.'
(14-CA) 'eyuhlly 'enyaa 'e-hellytaa-ch keyaa-h-a (maybe me 1-hair-sub be=gray-irr-a) 'Maybe my hair will turn gray (unfortunately).'

In other cases, it is associated with unusually assertive behavior:

(15-CA) 'enyaa-ch '-aa-h-keh-a (I-sub 1-go-irr-must-a) 'I must be going.'
(16-CA) 'e-hap-a (1-enter-a)'I'm going in!'(announcing move in card game)
(17-JA) arroviil taanuw-a (car make=run-a) 'I am so too going to drive.'
(18-JA) nya'aam-a 'Let's anyway.'
(19-JA) m-uuyaaw-a (2-know-a) 'You know it. You know better.'
(20-JA) 'aatim metaawar w-aam shemaa-h w-i'ii-ch-a (bow tired 3-leave sleep-irr 3-say-ss-a) 'Mr. Gunn is tired and going home to bed, that's what he said.'

In LH, the presence of the suffix does not seem to affect the meaning of the sentence, perhaps just stating the obvious.

(21-LH) wa-ha-ch kwatay-a (house-dem-sub big=one-a) 'The house is big.'
(22-LH) hatt-ch nyilly-a (dog-sub be=black-a) 'The dog is black.'

In the same dialect, it may appear on object NPs sentence internally, apparently as a clause marker (remember object case is unmarked):

(23-LH) nyaa-ch hatt-a nyilly '-achllap (I-sub dog-a be=black 1-hit) 'I hit the black dog. The dog that I hit was black.'
(24-LH) nyaa-ch hatt nyilly-a '-achllap 'I hit the black dog.'

Finally, still in LH, -a is suffixed to the plural stem of about 20 verbs, although it is never the sole marker of plurality. To my knowledge, no other Yuman language associates the suffix with plurality.

(25-LH) chunyaatt-a (plural of chnyaatt) 'they lie'
(26-LH) unyaay-a (plural of nyay) 'they hunt'

With the exception of the LH data, a unified feature of the use of the suffix -a is its use in difficult social contexts, where question-like constructions are often preferred in many cultures. In fact, there is evidence (Langdon and Hinton, in press) that direct questions are a form of inappropriate social behavior among Diegueño groups.

2. Predicate nominals

The typical Yuman predicate-nominal construction X Y-ch 'be' 'X is a Y' (Munro 1974) has a direct equivalent in Diegueño, where the subject marker -ch combines with a special verb yi 'be' and the emphatic -s into a suffix -chis ~ -ches, which also marks statements for emphasis. In the examples, a / separates the two NPs.

(27-MG) 'iikwich/kuseyaay-ches (man/doctor-is) 'The man is a doctor.'
(28-MG) 'enyaa '-aamuuch-vu/gayeen-ches (me 1-kill-dem/chicken-is) 'The one I killed was a chicken.'
(29-MG) 'ewaa m-um-vu/nya-'-taat we-chuw-ches (house 2-see-dem/my-1-father 3-make-is) 'The house you see is the one my father built.'
(30-JA) nyip/hatt-ches (that/dog-is) 'It's a dog.'
(31-JA) mat nyip/kwatay-ches (mountain that/big=one-is) 'That's the big mountain.'
(32-CA) hatt kumespach-vu/maa-ch me-ttim-ve-ches (dog dead=one-dem/you-sub 2-shoot-dem-is) 'The dead dog is the one you shot.'

Other constructions are also found, including the juxtaposition of two NPs unmarked for case.

(33-MG) puu/siny kwa'shash (that/woman beautiful=one) 'She is a pretty girl.'
(34-MG) peyaa/tekemak-m '-aa-h-vu (this/Mesa=Grande-to 1-go-irr-dem) 'This is the way I go to Mesa Grande.'
(35-CA) kuwach-vu/'e-chuuy (the=one=here-dem/1-husband) 'He's my husband.'
(36-CA) siny-vu/'enyaa '-ensiiny (woman-dem/me 1-wife) 'She is my wife.'
(37-LH) kunyilly-a,nyip/hatt (black=one-a,that/dog) 'The black one, that's a dog.'

Others show the verb yi 'be' without a preceding -ch. The syntactic analysis of such sentences is far from clear.

(38-MG) 'ewaa m-um-vu nya-'-taat we-chuw-m yi-s (house 2-see-dem me-1-father 3-make-ds be-em) 'The house you see is the one my father built.' (a variant of 29-MG)
(39-JA) peyaa 'enyaa-vu 'e-ntaly-yi-s (this me-dem 1-mother-be-em) 'This is my mother.'
(40-JA) maa-pa nyewaay-yi-s (you-dem friend-be-em) 'You are my friend.'

3. Relative clauses

The standard formation of relative clauses in MG and IV has been described in detail by Gorbet (1974). I will here limit myself to examples from other dialects and somewhat more aberrant constructions not discussed previously. First, some comments on forms with the kw- 'relativizer' prefix, i.e. those where the head noun is subject of the relative clause. A verb stem nominalized with kw- may in addition take subject/object prefixes like an inflected verb form.

(41-MG) 'enyaa-ch '-uuyaaw 'iikwich nye-ku-hwich-vu (I-sub 1-know man 3→1-rel-hate-dem) 'I know the man who hates me.'

Some verbs take a special form of the stem when nominalized by kw-. This special form, which reinforces the nominalization, shows modifications which elsewhere in the language are associated with plurality (see Munro 1973), although there is no correspondence between the plural stem of the verb in question and the form of the stem in the kw- word.

(42-MG) kuwach'he who is here' (waa 'is located'), kuhnoch 'the one who is sick (henoo 'is sick'), kumyuch 'which one?' (meyuu 'is somehow'), kumuw 'the one who doesn't' (maaw 'is not'), kullypiiwaarp 'the things that are hard to do' (llyepuuwar 'is unable')
(43-BA) kwechechyaaw 'singer' ('ech-yaaw 'to sing')
(44-BL) kwechmiich 'the one who cries' (-mii 'to cry')
(45-JA) kwechmaach 'dancers' (iimaa 'dances', iimaach 'they dance'), kuuch-maar 'peon players' (uumar 'plays peon')

(46-CA) kumespach 'the dead one' (mespaa 'to die')

The verb stem in an oblique (non-kw) relative clause may also show modifications of the same type.

(47-MG) 'enyaa-ch nya-'-taat 'ewaa echuw-vu 'e-peshuw-s (I-sub me-1-father house make-dem 1-take=care-em) 'I take care of the house my father built.'(in this case, the stem does not change but is missing the third person prefix w-, since we-chuw means 'he makes')
(48-MG) w-ich-vu 'e-yip-s (3-say-dem 1-hear-em) 'I heard what he said.' (the stem of 'say' is ii)
(49-BL) nyaa-ch nyawuu 'e-wich-vu me-wuuw-a (I-sub thing 1-do-dem 2-see-Q) 'Did you see what I did?' (the stem of 'do' is wii)
(50-BL) nyaa-ch nyawuu 'e-mawi-h-vu '-uuyaaw (I-sub thing 1-do=what-irr-dem 1-know) 'I know what I'll do.'(the stem of 'do what' is mawii)
(51-IV) uwii 'e-wuuw hattekchok me-tuch-vu (rock 1-see dog 2-hit-dem) 'I see the rock you hit the dog with.' (the stem of 'hit' is tuu)
(52-IV) 'ewaa 'e-pach-ve-ch 'ehwatt (house 1-reach-dem-sub be=red)'The house I came to was red.' (the stem of 'reach' is paa)
(53-LH) nyap waa-m '-ach-ha-ch nyemshap (me house-to 1-go-dem-sub be=white) 'The house I am going to is white.' (the stem of 'go' is aa)

In general, it can be seen that the most common stem modification applies to a set of verbs ending in a long vowel, and consists of shortening the vowel and adding -ch.

There is also some indication that the two types of relativization can contrast in the same environment.

(54-CA) 'i'iiy kwe-llyap 'e-wuuw (stick rel-burn 1-see) 'I see the burning stick.'
(55-CA) 'i'iiy llyap 'e-wuuw 'I see the burnt stick.'

The demonstrative suffix which usually identifies the end of the relative clause may be omitted as in (54-55) above and also in

(56-BL) nyaa-ch 'iipach '-uuyaaw siny kw-atrraap (I-sub man 1-know woman rel-beat) 'I know the man who beats his wife.'
(57-BL) hechany 'iipach kwe-chmiich mehan (girl man rel-cry like) 'The girl likes the crying man.'
(58-BL) hekwaal ku-shmach ku-wach me-mawii-h-a (baby rel-sleep rel-be=there 2-do=what-irr-Q) 'What will you do with the sleeping baby?'
(59-JA) 'iipaa arroviil ku-taanuw semray tewaa (man car rel-make=run drunk was=sitting) 'The driver of the car was drunk.'
(60-BL) mensap nyaa-ch 'iipach nye-siny tenaay aarrap 'e-wiiw-h (tomorrow I-sub man his-wife yesterday beat 1-see-irr) 'Tomorrow, I'll see the man who beat his wife yesterday.'
(61-BL) hechany 'iipach we-waaw mehan (girl man 3-holler like) 'The girl likes the man who hollered.'

Since in(55,60,61)there is no overt indication that the construction is a relative clause (i.e. no nominalizing morphemes are present), alternate analyses of these sentences are undoubtedly possible.

4. Other sentence nominalizations

Object complements, complements of 'know', 'teach', etc. are formed by the same device as relative clauses, namely suffixation of a demonstrative morpheme to the embedded predicate.

(62-MG) '-eyay 'ehan-ch apesiiw peyii temenyeway-vu (1-heart good-ss is=very here you=are=here=pl-dem) 'I am happy that you are here.'

(63-MG) me-ne-yiw-h-vu 'e-nur-vek 'e-shawii-h-s (2-pl-come-irr-dem 1-know-if 1-make=acorn=mush-irr-em) 'If I had known you were coming, I would have made acorn mush.'

(64-MG) nya'-taly nya-'-taat yullp nyeway n-aam-h-vu (my-1-mother my-1-father getting=ready are pl-go-irr-dem) 'My mother and my father are getting ready to go.'

(65-MG) Ted ny-aachemuuyuuw 'iipay aa '-aayp-vu (Ted 3→1-teach Indian language 1-speak-dem) 'Ted taught me to speak 'Iipay Aa.'

(66-CA) 'enyaa-ch '-uuyaaw maa-ch 'enym-aarap-h-vu (I-sub 1-know you-sub 2→1-hit-irr-dem) 'I know that you are going to hit me.'

(67-IV) nyaa-ch '-uuyaaw puu-ch aakway nye-waa-m w-ach maaw-vu (I-sub 1-know he-sub return his-house-to 3-go not-dem) 'I know he didn't go home.'

(68-BL) me-mich-vu ke-peshkwi' (2-cry-dem im-stop) 'Stop your crying.'

Since relative clauses can be headless, as shown in (48-49), it is evident that there is no formal difference between this type of complement and oblique relative clauses. As (67) shows, even the special nominalized forms of some verb stems are used, in this case ach, nominalized form of aa 'go'. I therefore conclude that relative clauses and object complements are instances of the same construction in Diegueño.

Verbs meaning 'think' as well as special uses of the verb ii 'say' with the meaning 'try, intend, think' are similar, but it is the clause containing the 'think' verb that is nominalized. All available examples are first person, so the construction is probably best translated by '.... (that's) what I think.'

(69-MG) 'enyaa '-iichach-vu 'iipay aa-ve-ch 'eshash apesiiw (I 1-think-dem Indian language-dem-sub beautiful is=very) 'I think 'Iipay Aa is a beautiful language.' [iichach is nominalized form of iichaa 'think']

(70-MG) 'enyaa-ch kwellyhiiw 'ehmiiy-m 'e-chekwapm 'ewaa 'e-chuw-h '-ii-s-vu (I-sub money is=a=lot-ds 1-throw=away=lots house 1-make-irr 1-say-em-dem) 'I spent a lot of money trying to build a house.'

(71-IV) paychach-vu puu cheyaaw-h (I=think-dem he sing-irr) 'I think he'll sing.'

(72-IV) nyaakur me-saaw-ch me-yu '-ich-vu (already 2-eat-ss 2-be 1-say-dem) 'I thought you already ate.'

Similarly, subject complements, which are rare, represent the same constructions as headless oblique relative clauses serving as subject of the matrix verb.

(72-MG) pily '-iichach-ve-ch purp-s 'ewaa 'e-chuw-vu (now 1-think-dem-sub is=different-em house 1-make-dem) 'Now I have changed my mind about building a house.' i.e. ' Now what I think is different about my building a house.'

(73-CA) pii me-nyeway-ve-ch 'ekur-chu (here 2-live-dem-sub is=long=time-Q) 'How long have you lived here?' or 'Is the fact that you live here of long duration?'

(74-LH) nya'waa-ch pii '-nyeway-ha-ch matwam shahuuk (we-sub here 1-live-dem-sub year are=ten) 'It must be ten years that we have lived here.'

5. Switch-reference

Most nominalized constructions described in sections 3 and 4 can be paraphrased by an appropriate use of the all-purpose sentence conjoining/embedding mechanism of switch-reference which marks the lower clause with -ch if it has the same subject as the higher clause, and with -m if their subjects are different. Subtle differences of meaning or at least appropriateness are undoubtedly conveyed by the various constructions, but are not sufficiently understood to allow insightful discussion. Object complement examples are:

(75-MG) nya-'-taly nya-'-taat yullp nyeway n-aam-h-ch (me-1-mother me-1-father be=ready be=pl pl-leave-irr-ss) 'My mother and my father are getting ready to leave.' (cf. 64-MG)
(76-MG) 'enyaa-ch 'e-nur lili shawii we-chuw-m (I-sub 1-know Lillie acorn=mush 3-make-ds) 'I know that Lillie made acorn mush.'
(77-BL) nyaa hachany-ch hemii-m 'e-wuuw (I girl-sub grow-ds 1-see) 'I see that the girl has grown.'
(78-BL) m-uuyaaw-h maaw-m nyaa-'-chuuy kush apsiiw (2-know-irr not-ds me-1-husband be=tall be=very) 'You didn't know my husband was so tall.'
(79-BL) 'iipach u-matt-ch shewii we-saaw-h (man 3-wonder-ss acorn=mush 3-eat-irr) 'The man was wondering whether he would get to eat acorn mush.'
(80-IV) nyaakur we-saw-m '-uuyaaw (already 3-eat-ds 1-know) 'I know he already ate.'
(81-JA) nyaa-ch '-iimaa-ch '-uuyaaw (I-sub 1-dance-ss 1-know) 'I know how to dance.'

Relative clause examples are:

(82-BL) 'iipach hatt aarap hatt hekwaal chuukuw-chem (man dog hit dog child bite-ds) 'The man hit the dog that bit the child.'
(83-BL) tenaay tiiwuuw waa we-llyap-chem (yesterday indeed=I=see house 3-burn-ds) 'Only yesterday did I see the house that burned down.'

Note that in (82-83), an apparent combination of the two switch-reference markers, -chem, is used instead of -m to indicate 'different subject'. This combination never occurs in MG, is fairly common in BL, CA, and JA where it coexists with both -ch and -m (whether -m and -chem are interchangeable there or convey separate meanings is far from clear at this time), and seems to be on the way to replacing -m in LH, where the switch-reference system tends to be represented now by -Ø 'same subject' and -chem 'different subject.' Thus

(84-LH) pii shuukatt waar-a (here be=cold=Ø be=very-Q) 'Is it very cold here?'
(85-LH) nya-llyap-chem nyemuhay (when-be=hot-ds I=don't=like) 'I don't like it when it's hot.'
(86-LH) nyi-ch nye-hway-h taayaw-chem kway 'e-yiw (he-sub 3→1-kill-irr 3=being-ds return 1-come) 'He was going to kill me, so I came back.'

In addition, dialects other than LH also occasionally omit the switch-reference markers, so that the results are sentences whose structure (as already noted for 60-61) is essentially ambiguous. An additional example is

(87-BL) hechany nye-mhan nyaa-ch '-ip (girl 3→1-like I-sub 1-hear) 'I heard that the girl likes me.'

6. 'Say'

As in most other Yuman languages, the verb ii (i'ii or i'i depending on the dialect) 'say' enters into many syntactically and semantically specialized constructions. The full details are not well understood but some sample sen-

tences will illustrate the various patterns.

A common construction is for the clause containing the verb 'say' to be the embedded one contrary to expectations (cf. 69-72).

(88-MG) me-taat k-ii-m 'ily tuukatt (2-father im-say-ds wood chop) 'Tell your father to chop wood.'
(89-MG) puu-ch nye-kenaa-s paa-taat henoo w-ii-ch (he-sub 3→1-tell-em 3-father be=sick 3-say-ss) 'He told me that his father was sick.'
(90-BL) nyaa haakwal hatt k-uusuw '-ii-chem (I child dog im-feed 1-say-ds) 'I told the child to feed the dog.'
(91-IV) nyaa-ch '-i'ii-chem cheyuw (I-sub 1-say-ds 3=sing) 'I asked him to sing.'
(92-IV) nyaa-ch ke-chyuw '-i'ii-m cheyuw-ches (I-sub im-sing 1-say-ds 3=sing-indeed) 'I made him sing.'
(93-CA) maaw-h '-i-ch (not-irr 1-say-ss) 'I say no.' 'I won't.'
(94-LH) nyi-ch nyaa-ch '-aa-h w-i'i-ch (he-sub I-sub 1-go-irr 3-say-ss?) 'He told me to go.'
(95-LH) nyi-ch maa-ch m-aa-h w-i'ii-ch (he-sub you-sub 2-go-irr 3-say-ss?) 'He told you to go.'

Also common is the situation where both the 'say' clause and the other clause of the sentence are unmarked for embedding. Often the 'say' clause carries the emphatic markers -s or -ches, clearly identifying it as the main clause.

(96-MG) 'enyaa-ch ke-saaw '-ii-s (I-sub im-eat 1-say-em) 'I said:"Eat it."'
(97-MG) puu-ch 'e-yiw-h maaw w-ii-s (he-sub 1-come-irr not 3-say-em) 'He said for me not to come.'
(98-MG) 'enyaa-ch 'elymaam-vu 'exatt k-uusuw '-ii-s (I-sub child-dem dog im-feed 1-say-em) 'I told the child to feed the dog.
(99-MG) 'elymaam-vu '-uuchutt 'ehatt uusuw-h '-ii-s (child-dem 1-order dog feed-irr 1-say-em) 'I ordered the child to feed the dog.'
(100-BA) peyii tuuyuuw-h w-ii (here 3=be=standing-irr 3-say) 'He said he would be here.'
(101-BL) nyaa maa-vu nye-kenaap saakwill 'e-lus-h '-i'ii (I you-dem 1→2-tell dishes 1-wash-irr 1-say) 'I told you I would wash the dishes.'
(102-IV) tiipay nye-kenaap maa-ch cheyuw w-ii-s (person 1→2-tell you-sub sing 3-say-em) 'Someone told me you were a singer.'
(103-CA) taaniw-ch eyuu w-ii-ches (they=were=there-ss be 3-say-em) 'They were there, he said.' 'They were there, I was told.'
(104-LH) nyaa-ch maa-ch m-aa-h '-i-ches (I-sub you-sub 2-go-irr 1-say-em) 'I told you to go.'

Note that in some of these sentences the complement of 'say' is in direct discourse (96,98), in others indirect discourse (97,99,102), while the remainder are ambiguous in that respect.

A mysterious suffix -m occasionally appears on a main-clause 'say' predicate in CA.

(105-CA) 'enyaa-ch ke-ttim '-i-m-s (I-sub im-shoot 1-say-m-em) 'I told him to shoot.'
(106-CA) w-i'i-m-s (3-say-m-em) 'He said it.'

7. Modals

Modal notions are expressed by a wide variety of constructions, the majority of which involve the use of the 'irrealis' morpheme -h in combination with various other affixes, often surrounding a reduced form of the verb yuu 'be'. A common combination used as a suffix on the main predicate is -keh or -kuh which I assume to be composed of k 'dependent future' + the reduced unstressed form of yuu 'be' + h 'irrealis'. Its most common translation is 'must be'. Another common modal element is 'eyuhlly, an independent word most frequently appearing in sentence-initial position and translated 'maybe'. Etymologically, it is undoubtedly composed of 'e-yu-h-lly (1-be-irr-into) 'It seems to me..' or 'it might be the case that..' A few very rare instances of this form inflected for other than first person confirm the analysis of 'e- as 'first person'. In some dialects, a main verb suffixed with -h 'irrealis' and followed by the word wach of unidentified origin conveys the meaning 'should, ought to, supposed to'. Examples illustrate some of the possible combinations.

(107-MG) Palomar-m n-aa-keh-s '-iichach-vu (Palomar-to pl-go-must-em 1-think-dem) 'I think they must be going (or must have gone) to Palomar.'
(108-MG) me-miiy '-a-h-lly-a (2-go=with 1-go-irr-into-Q) 'Can I go with you?'
(109-MG) '-aa-h-ches (1-go-irr-em) 'I must go.'
(110-MG) n-aam-h-keh-s (pl-leave-irr-must-em) 'I guess they'll be leaving.'
(111-MG) Tekemak-m m-aa-h-m tuuyuuw-s (Mesa=Grande-to 2-go-irr-ds 3=being-em) 'You should go to Mesa Grande.'
(112-MG) we-yiw-ch nyewaayp-kuh '-kwach (3-come-ss live-must 1-be=with=pl) 'He came to live with us.' 'He came with the intention of living with us.'
(113-BL) hekwaal skweel n-a-h wach (children school pl-go-irr should) 'Children are supposed to go to school.'
(114-BL) siny we-llyully uuchyuwp-h wach (woman 3-cook know=pl-irr should) 'Women should know how to cook.'
(115-BL) 'eyuhlly nyimsap '-n-aa-h (maybe tomorrow 1-pl-go-irr) 'Maybe we'll go tomorrow.'
(116-BL) kuseyaay nyaam pa-pek siny mespaa-h maaw-h tuuyuuw (doctor just arrive-if woman die-irr not-irr 3=being) 'If the doctor had only come, the woman would not have died.'
(117-CA) 'e-yiw-h-lly-a (1-come irr-into-Q) 'Can I come?'
(118-CA) muuluu w-ii-ch aamuuch-kuh-a (why 3-say-ss kill-must-Q) 'Why should he kill him?'
(119-CA) 'eyuhlly 'iipach-ve-ch w-i'ip-kuh-lly-a (maybe man-dem-sub 3-hear-must-into-Q) 'Can the man hear (me)?'
(120-CA) n-aa-h wach (pl-go-irr should) 'They must go.'
(121-CA) 'ewaa-ch 'eyuhlly '-ii-s (house-sub maybe 1-say-em) 'I guess it must be a house.'
(122-CA) m-uuyaaw me-yuhlly '-ii-s (2-know 3-maybe 1-say-em) 'I guess you must know.'
(123-IV) eyuh w-i'ii puu cheyaw-h (maybe 3-say he sing-irr) 'Maybe he'll sing.'
(124-LH) nyaa-ch cheyuw-h-kum (I-sub sing-kum(k+yu+m?)) 'Should I sing?'

The suffix -vek, normally suffixed to embedded 'if' clauses, can be used with modal meanings in CA:

(125-CA) 'enyaa-ch 'e-yiw-vek-a (I-sub 1-come-if-a) 'I might come.'
(126-CA) 'eyuhlly '-iimaa-ch-vek-a (maybe 1-dance-pl-if-Q) 'Shall we dance?'
(127-CA) ke-saaw-vek (im-eat-if) 'Eat then!'

In MG, the meaning 'maybe' is typically conveyed by a form of the predicate iinuyp, either unmarked or suffixed by -vek'if' or -k 'dependent future'.

(128-MG) iinuyp w-aam-s (maybe 3-leave-em) 'Maybe he left.'
(129-MG) iinuyp-vek '-iimaa-h-s (maybe-if 1-dance-irr-em) 'Maybe I'll dance.'
(130-MG) iinuyp-k aalap-h-s (maybe-df snow-irr-em) 'Maybe it'll snow.'

8. Emphatic te-

A prefix te- acting as an emphatic or focusing device was recorded with inordinate frequency in the speech of a speaker of the Iñaja dialect, an 'Iipay dialect otherwise very close to MG. All data for this dialect are from Roderick Jacobs' fieldnotes as well as from Jacobs (1969ms). The phonological shape assigned to the prefix requires some comment, since e is an inorganic vowel typically inserted by rule. It is given here as part of the underlying representation of this morpheme to indicate that the vowel is always present even before a word beginning in a vowel, an environment where e is not normally inserted by rule. The explanation is probably that the prefix is separated from the word to which it is attached by a strong syntactic boundary similar to that associated with the prefix nya- 'when' which occasionally has similar effects. The origin of the te- prefix is obscure, though I suspect it is cognate with the t- prefix on auxiliary verbs describing non-immediately verifiable events (Baker 1970). Synchronically, the two prefixes must be kept distinct since they serve different functions.

(131-IN) no, te-we-maaw, ke-wuuw-na (no, te-3-not im-look-im) 'No, nothing doing, look at it.'
(132-IN) nyipily te-nye-saaw-h (right=now te-1→2-eat-irr) 'Now I'll really eat you.'
(133-IN) puu-ch te-uusaay (he-sub te-laugh) 'He was laughing.'
(134-IN) te-ke-yiw (te-im-come) 'Come on!'
(135-IN) te-metenyaally-ches (te-tomorrow-em) 'Tomorrow!'
(136-IN) menyawap puy te-temenam (you=pl there te-you=were=there=pl) 'You all were really there.'
(137-IN) peyaa te-hantepaa(ches) (this te-coyote-(em)) 'This is a coyote.'
(138-IN) peyaa te-'elymaam kwa-stik (this te-child rel-little) 'This is a little baby.'

Note the prefix appears typically on a verb, it may cooccur with emphatic suffixes (135), with the t- prefix on auxiliary verbs (136), and may even appear on nouns (137,138) in which case it seems to supplement or replace the standard predicate nominal construction. Except for the use on nouns, which seems to be unique to Iñaja, examples have been recorded in all other dialects, but much less frequently. The prefix is rarest in MG, and most common in BL, illustrating as has so much else in this paper, the lack of explanatory power of any rigid subgrouping.

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DIEGUEÑO CASE MARKING: CONDITIONS ON OPTIONALITY*

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Studies of case systems usually focus on the morphological character of the marking and on the semantics of the cases. That is, we ask how a case is manifested and what it means (perhaps in a particular context). The assumption is that when the relation appropriate to a case marker exists, then that marker will appear. My own investigation of the Diegueño system also focussed on semantics and surface morphology,[1] but in so doing, it ran into an unexpected problem: case was often not marked when I expected it -- i.e. where the semantic or grammatical relation appropriate to some case held between a particular noun phrase and its predicate.

At first, this seemed only a minor annoyance, an inconvenient obstacle to data-gathering to be resolved mainly by patience and better communication of the linguistic problems that concerned me. Curiously, however, optionality as an obstacle to understanding case semantics and morphology disappeared (of course other obstacles remained!), but it became a worthwhile problem in its own right.

If case is sometimes marked and sometimes not, what governs the choice, apart from whim or "style"? This question begs another: whether there are significant syntactic or semantic generalizations about when case is marked. The remainder of this paper will discuss some such generalizations and suggest that conditions on optionality lead down some interesting theoretical paths.

Briefly, the morphology and semantics of the cases are as follows. The six surface cases appear as suffixes on the noun (or, more generally, noun phrase[2]) to which they apply; they are the last such suffix on the word. The SUBJECT case is marked by -c and denotes the surface subject, except in predicate nominal constructions, where it marks the predicate. The OBJECT case is marked by Ø (i.e. is unmarked[3]) and indicates direct and indirect objects, the "subject" of predicate nominals, possessors, and temporal nouns. The COMITATIVE case, marked by -m, is used for accompaniment,[4] motion towards the referent of the marked NP, and instrumental. The ABLATIVE -k marks motion away from the referent of the marked NP. LOCATIVE -i indicates general location, something like English at. The INESSIVE/ILLATIVE -Lʸ (a voiceless alveopalatal lateral fricative) marks motion or position inside the referent.

As noted, case is sometimes not marked when a case role is clearly filled by some noun (phrase). Consider (1):

(1)

ʔi:kʷic	ʔxin	nʸwayp	t+wa:	,	i:tay+pu+i
man	one	live	PROG+be-sitting		forest+DEM+LOC

'there was a man who lived alone in the forest'

Two NP's in (1) have case roles: ʔi:kʷic 'man' and i:tay 'forest', but only the latter bears the morphological mark of its role. Sentence (2), on the other hand, is not acceptable:

(2) * ʔi:kʷic+c ʔxin nʸwayp t+wa:, i:tay(+pu)
man+SUBJ one live PROG+be-sitting forest(+DEM)

Thus some combinations of marked and unmarked cases are permitted and others are not. I note below some conditions which seem to govern case marking "optionality".

The first condition is

CONDITION 1: CASE IS OBLIGATORY ON PERSONAL PRONOUNS

Since the Diegueño verb is marked for the person of its subject (and object, if transitive) and neither subject nor object pronouns need appear on the surface, we may suppose that the surfacing of pronouns indicates some degree of emphasis and that an emphasized element has greater need to have its role clearly indicated. That is, I assume that if an element is emphasized, then the "cost" of uncertainty[5] about its role will be greater.

A similar argument could be made for

CONDITION 2: CASE IS OBLIGATORY ON RELATIVE CLAUSES

as exemplified in

(3) [tənay ʔwa:(+Ø) ʔ+wu:w]+pu+Lʸ ʔ+ciyaw+x
[yesterday house(+OBJ) 1+see]+DEM+IN 1+sing+IRREAL

'I'll sing in the house I saw yesterday'

(4) * tənay ʔwa: ʔwu:w(pu) ʔciyawx

On the other hand, the obligatory marking of relative clauses may merely reflect

CONDITION 3: CASE IS OBLIGATORY WHEN THE DEMONSTRATIVE SUFFIX -pu IS PRESENT

This condition applies to nouns as well as relative clauses (which are possibly always restrictive in Diegueño and hence marked with -pu), so that when a noun (phrase) ends with -pu, we can infer that it is of the form

(5) N + pu + Ø = N + DEM + OBJ

For example,

(6) xatəpa:+pu+Ø w+wu:w 'he (she or it) saw the coyote'
coyote+DEM+OBJ 3+see

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cannot be taken to mean 'the coyote saw it (or her or him)'. This condition may also relate to Condition 1, that on personal pronouns, since the latter are redundantly definite, the necessary condition for the appearance of -pu on nouns.[6]

Another condition, with an obvious functional basis, is

CONDITION 4: CASE IS OBLIGATORY WHEN "UNUSUAL" WORD ORDER IS USED

Diegueño basic word order is SOV, so any non-SOV order may be regarded as "unusual"; so may an order that deviates from the norm for ordering the constituents subsumed under the "O" of "SOV" (see (19) below). Such orders arise in two principal ways. The first is the (re-)ordering of simple noun phrases for emphatic purposes.[7] For example, there are sentences like

(7)	xaṭ+pu+Ø	sin^{y}+c	a:řap		'the girl hit the dog'
	dog+DEM+OBJ	woman+SUBJ	hit		
(8)	w+wu:	i:pac+c	sin^{y}+pu+Ø		'the man saw the lady'
	3+see	man+SUBJ	woman+DEM+OBJ		
(9)	ʔwa:	piya:	ʔ+ta:t	w+cuw	'this is the house my father built'
	house	this	1+father	3+build	

The second source of non-SOV order is "complex NP movements". These include relative clause preposing, extraposition, and right dislocation. Their function is the clearer demarcation of embedded clauses and the facilitation of matrix clause processing. Preposing is exemplified by

(10)	ʔwa:(+Ø)	m+um+pu+Ø	n^{y}+a:ta:t+c	w+cuw+s	
	house(+OBJ)	2+see+DEM+OBJ	1+father+SUBJ	3+build+EMPH	

'my father built the house you see'

(11)	i:pac	xaṭcok	sin^{y}	k^{w}+i:n^{y}+pu+Ø	n^{y}a:+c	ʔ+wu:w
	man	dog	woman	"-er"+give+DEM+OBJ	1+SUBJ	1+see

'I saw the man who gave the dog to the woman'

Extraposition of the object complement and the indirect question, respectively, occurs in

(12)	ʔnyaː+c	ʔ+i:ca:+s	puy	taʔnywayː+pu+Ø
	1+SUBJ	1+remember+EMPH	there	we-be-there+DEM+OBJ

'I remember that we were there'

(13) n^{y}a:+c ?+uyaw+x ?+maw pu:+c ciyaw+L^{y}
1+SUBJ 1+know+IRREAL 1+NEG 3+SUBJ sing+IN

w+ar+pu+Ø
3+want+DEM+OBJ 'I don't remember whether he wants to sing'

Right dislocation is exemplified in

(14) k^{w}siya:y+pu+c ?wil^{y}+pu+Ø wu:w, ?wil^{y}(+Ø) ?i:k^{w}ic
doctor+DEM+SUBJ rock+DEM+OBJ see rock(+OBJ) man

?l^{y}ma:m tu:yiw+pu+Ø 'the doctor looked at the rock
small bring+DEM+OBJ that the boy had brought'

(= 'the doctor looked at the rock, the rock that the boy had brought)

In either type of unusual word order, rigid case marking encodes information about nominal roles ordinarily present in linear order. Case marking also, of course, augments the demarcation of clause boundaries achieved by the special word order of "complex NP movements".

The final condition on case marking is a hierarchical or implicational one. The cases can be partially ordered as a

(15) CASE OPTIONALITY HIERARCHY:

$$\text{SUBJ} > \text{OBJ} > \text{COMIT} > \begin{cases}\text{LOC}\\ \text{ABL}\\ \text{IN}\end{cases}$$

so that if any case in a sentence is marked, then all cases in that sentence to the right of the marked case on (15) must also be marked; schematically:

(16)

IF:	A > B
AND:	A is marked
THEN:	B must be marked

Thus, for example, one cannot have sentences like

(17) * ?i:k^{w}ic+pu+c ?wil^{y} ?wa:+m w+a:
man+DEM+SUBJ rock house+COMIT 3+go

'the man went from the rock to the house'

where, for example, SUBJ is marked but ABL (to the right of SUBJ on (15)) is not. In contrast, those like (18) are fine:

(18) ?i:k^{w}ic ?wa:+m w+a: 'the man went to the
man house+COMIT 3+go house'

since the marked case (here, COMIT) is to the left of the unmarked case (here, SUBJ) on (15).

Given the facts as described, two obvious questions arise: why should a language allow some cases to be unmarked while others in the same sentence are marked; and why should the hierarchy (15) have the particular ordering it does? To the first, I can offer no very likely answer.[8] Before considering the second, we should note some striking correspondences between the Case Optionality Hierarchy (15) and some other orderings of case systems. First, within Diegueño, it corresponds closely to the unmarked linear order of cases:[9]

(19) LINEAR ORDER OF DIEGUEÑO CASES:

SUBJ - DIR OBJ - INDIR OBJ - INSTR - "Locatives"

Second, the Optionality Hierarchy is consistent with other (possibly universal) rankings such as Keenan and Comrie's (1972) "NP Accessability Hierarchy" and the traditional opposition between "grammatical" and "local" cases. These additional correspondences within and beyond Diegueño grammar add to what needs to be explained and, I believe, provide useful clues as to the likely explanation.

A crucial datum is the relative orientation of the Optionality Hierarchy and the grammatical vs. local opposition -- grammatical cases are the most optional, local cases are the most obligatory. The term "grammatical" reflects two tendencies of the surface cases to which it refers: (a) they are often required by surface grammatical conditions and (b) they often result from grammatical processes (e.g. various "raising" rules) which alter relations among predicates and their arguments. Furthermore, the grammatical cases, even where transparently syntactic processes are less evident, are more prone to neutralize several different deep cases (e.g. subject case for agent and exper encer) than are the local cases. Because of this variable parentage, the markings themselves of grammatical cases are less informative. Given that an NP is marked SUBJ, we know less that we didn't already know than if it were marked, say, ABL.[10] The shallower and less semantic position of grammatical cases does not, of course, mean that when we hear sentences with subjects and objects, we are necessarily uncertain as to the role played by those arguments. Rather, it means that grammatical cases will place greater demands on pragmatic knowledge, discourse context, and semantic/syntactic constraints such as the arguments required by the particular predicates with which they are associated. The presence of case marking on local cases more transparently conveys their semantics. The Case Optionality Hierarchy, then, maximizes the information-per-marking when only some cases are marked.

Recognizing that syntactic processes generally are dis-semantic -- that they increase the disparity between the structures to which they apply and the semantic sources

of those structures -- it is apparent that other facts besides the case hierarchies noted so far reflect similar tendencies. The general principle seems to be

(20) STRUCTURES MOST DISTANT FROM THEIR SOURCES ARE MOST SUBJECT TO FURTHER MUTATION

Ross' (1973) "Penthouse Principle", that processes which apply to subordinate clauses also apply to main clauses, is one instance of (20), since main clauses will, ceteris paribus, involve more (primarily vertical) conflation of structure than lower clauses and hence will be more distant from their sources.[11] Note further that in Diegueño, case marking is optional only on nouns. Nouns are significantly more derived, using predicational material (which has been typically lexicalized internally) to refer, than the obligatorily case-marked pronouns, which have much less predicational content, and relative clauses, which are more semantically transparent.

The tendency noted in (20) increases the superficial differences between syntactic categories, since differentiation at an "earlier" stage contributes to further differentiation -- in contrast to the possibility that "later" processes would apply nondifferentially or even undo earlier differentiation. Such "expansion" of category differences may have a direct basis in the need to increase surface discrimination. More likely, I suspect, is that, as with the optionality of cases, it acts so that when dissemantic processes apply for independently motivated functional reasons (e.g. to facilitate parsing or to maintain the coherence of discourse), they apply where they do the least damage to semantic transparency.

NOTES

* I am grateful for helpful comments on the problems I discuss here by Ricky Jacobs, Judy Joel, Ron Langacker, Margaret Langdon, and Pam Munro, among others. Pam Munro and Judy Joel have made me aware that other Yuman languages differ significantly from Diegueño in various aspects of their case systems, including non-trivial differences in case optionality. Hopefully, further investigation will permit clearer views of the synchronic and diachronic case systems than presented here for Diegueño.

I use several abbreviations in this paper; some of the less transparent are: ABL 'ablative'; COMIT 'comitative'; DEM 'demonstrative (= definite) suffix'; EMPH 'emphatic'; IN 'inessive/illative'; IRREAL 'irrealis suffix'; 1 'first person'; 2 'second person; 3 'third person'.

1. See Gorbet 1973 and 1974 for details.

2. More specifically, the case markers are suffixes on the

last word of the noun phrase bearing the case relation. When the NP is complex (e.g. a relative clause or sentential complement), this last word will always be a verb, since SOV order is strict in subordinate clauses. Examples in this paper include (3) and (10)-(13). For further discussion, see Gorbet 1974:13, 43-44.

3. Though OBJECT case is unmarked (directly), it is possible in some instances to unambiguously infer its presence; see (5) below and the discussion preceding it.

4. Not all accompaniment is marked by placing the "companion" in the COMITATIVE case. More common is the use of various complex constructions using a subordinate clause whose main verb is 'be two', 'be mixed', or a similar predicate.

5. By "uncertainty" I do not refer merely to doubt remaining after the sentence has been processed. I strongly suspect that the disruption of processing itself will be greater when an emphasized element is less transparently marked for its role.

6. Unlike English the, however, -pu seems quite optional, at least on nouns. That is, there are English sentences with the used in a clearly definite sense which are commonly translated into Diegueño without -pu. The term "optional" is a cop-out, of course, meaning that I have been unable to find any even fuzzily-cut conditions requiring (or forbidding) -pu on nouns. The optionality of -pu, incidentally, extends to proper nouns.

7. By "emphatic", I subsume and oversimplify notions like topic and focus. My theoretical prejudice is that linear order is first determined very near surface structure and that such "subjective" factors as topic and focus play a direct role in its determination.

8. One could appeal to notions of "economy" like "lazy tongue" (cf. Ross 1975), but given the degree of redundancy endemic to human language, it is hard to imagine a language skimping on a case marking in a sentence where other cases are marked just to save a consonant or two. I am also uncomfortable with the power of so undifferentiated an explanatory principle. For an even more skeptical viewpoint, see Fodor's discussion of Ross 1975 immediately following in the same volume.

9. This coincidence of the Optionality Hierarchy (15) and the linear order (19) has the corollary in simple sentences that all unmarked cases will precede all marked cases. It is tempting to try to base an explanation of the Optionality Hierarchy itself on this corollary. At this time, I can only

offer preliminary observations and speculation. The degree of choice the speaker has in deciding whether or not to mark the case of an NP is greatest for the first NP -- all NP's may be marked and the first is most readily not marked. Thus the fact that a marking appears (as opposed to the identity of the marking) is most informative for the first NP. The question is, what does this information mean, how is it used? A plausible psycholinguistic approach and a sociolinguistic one occur to me.

The former is that non-marking (of the first NP) alerts the hearer to the possibility of more unmarked NP's and, more importantly, to the extra attention to be payed to the linear order, semantic content, etc. of succeeding NP's in order to determine their roles. Marking of the first NP, on the other hand, guarantees case marking of remaining NP arguments and thus permits (requires?) less attention to be paid to word order as a factor in deciding NP roles. So the marking or not of the first NP is a clue to better processing strategy for the sentence.

The sociolinguistic hypothesis is that, since semantic (structural) functional load on case marking is less for the first NP, its marking may be available as a (binary) sociolinguistic cue (e.g. to indicate degree of "formality"). Since I am ignorant of any relevant Diegueño sociolinguistic facts, this is pure speculation. If, as seems likely a priori, marking is more "formal" than not marking, then the linear order of unmarked, then marked NP's within sentences runs counter to the general case (in discourse, conversation, and human interaction generally) that the expected temporal course is from more formal to less formal. Someone, however, (I believe Allen Munro) has suggested (personal communication) that the latter consideration may be irrelevant due to the (sociolinguistically) insignificant time span of a sentence. The psycholinguistic and sociolinguistic functions suggested easily could coexist, since the former is a consequence of the "monotonic" directionality of unmarking/marking uninfluenced by any hypothesized sociolinguistic basis for making the initial choice to mark or not mark the first NP.

10. This is not to say that which deep cases are grammatical is determinate universally. While the case that typically includes the agent is likely to be grammatical and that which indicates position inside is less likely to be grammatical, there is ample evidence that probably any case may acquire some grammatical role in some language. Note, for example, the English locative by used for passive agents.

11. For discussion of functional motivation for such "clause scrunching", see Langacker 1974 and Ross 1975.

THE COCOPA AUXILIARY VERB ya· be located, happen

James M. Crawford

1. There are five verbs of position in Cocopa. Three of these verbs may signify the positions of both objects and animate beings, according to whether they are perceived as sitting, lying, or standing. Animate beings are perceived as being capable of occupying any one of these positions. All three verbs, therefore, are appropriate to state the positions of animate beings as the circumstances and situations require. On the other hand, only one of these three verbs is, as a rule, proper for signifying the position of objects. Objects which are relatively narrow and long are perceived as either lying or standing, according to whether they are oriented, respectively, horizontally or vertically. Objects which are not narrow and long and objects of indeterminate shape are, for the most part, perceived as sitting. The Cocopa verbs which denote these three positions are: wa sit, yak lie, and p'a· stand. A few objects which are not narrow and long and for which wa sit would seem appropriate, e.g., "bowl", "table", require not wa, but a fourth verb, ya· be located, happen, for signifying their positions. There are a few objects of variable or indeterminate shape, e.g., "house", "lake", "plot of land", whose positions may be stated by either of two verbs, usually by wa or ya· or by yak or ya··

The above statements are applicable only when animate beings and objects are perceived as individuals. The position of animate beings viewed as a collection of individuals which exist or act as a unit is signified by ya·: several (animate) to be located as a group, regardless of whether they are sitting, lying, or standing. The position of two or more objects viewed as a collection or as a unit is denoted by ya·, regardless of the shape and orientation of the individual objects.

Thus, ya· is both a collective inanimate plural verb of position and also the appropriate verb for stating the position of a small class of objects when these objects are viewed as individuals.

2. The five verbs of position may be main verbs in verb phrases or they may follow main verbs as auxiliaries. As main verbs of phrases, they denote explicitly that objects and beings occupy the positions stated. As auxiliaries, they convey the same information as to position, but there is much less emphasis on the particular position occupied. The particular position occupied, as signified by the auxiliary, is incidental and of secondary importance to the action of the main verb. But the position must nevertheless be stated in order to conform to Cocopa conceptions of psychological and semantic completeness and naturalness. Part of the naturalness felt by speakers in the use of verbs of position as auxiliaries is probably due to the fact that it is only these verbs and certain other verbs, including two verbs of motion, which are permitted to attach the locative-temporal prefixes

which locate an action, event, or occurrence in relative space and time.[1] The establishment, therefore, of a separate and special class of verbs as auxiliaries is justified formally as well as semantically.

The locative-temporal prefixes are pa- here, now, pu- here, then (farther in space or time than pa-, but not as far as ṣa-), and ṣa- there, then. The ability to attach one of these prefixes serves, therefore, as the criterion for assigning a verb to the class of auxiliaries. The actual affixation of one of the prefixes signifies, or may signify, the employment of the verb as an auxiliary, rather than as a main verb.[2]

Sentences 1-13 illustrate the use of the five verbs of position either as main verbs or as auxiliaries.[3]

wa sit

(1) ša-c wa ma·-y ʔu-wá-c
bird-subj house above-on 3ps-sit-ppc

pu-·-wá-c.
here-3ps-sit-ppc

The bird is sitting on top of the house.
(pu·wác is auxiliary to the main verb ʔuwác.)

(2) n^{y}awí· ɬ^{y}-u-sá-c ʔu-yá·-c
thing in-3ps-place=sev.-ppc 3ps-pick=up-ppc

ṣx-u-ʔák-m ṣa-wá-c yu-m.
3ps-hang=up-sb there-sit-ppc be-cont
(ṣxʔak hang up)

She put things in (the bag), took it and hung it up, and it (the bag) was there.

yak lie

(3) šu·pá·y-c wa xrpay yak pu-yák.
ladder-subj house be=near lie here-lie

The ladder is lying near the house.

(4) k-u-n^{y}á·p ṣa-·-yú-c pu-·-yák-c
3ps-tell there-3ps-be-ppc here-3ps-lie-ppc
(kn^{y}a.p tell)

ʔu-yú-ṣ.
3ps-be-ev

She told that that was how he was, lying there.

pʔa· stand

(5) šu·pá·y-c wa xrpay pʔa·-c pʔa·.
ladder-subj house be=near stand-ppc stand

The ladder is standing near the house.

(6) ʔaʔá· pi·-n^{y} pu-y p-u-ʔá·-c.
fire this-pns here-at 3ps-stand-ppc
(pʔa· stand)

He stood here by the fire.

ya·w be located (animate)

(7) k^{w}n^{y}acáy x-u-n-wák ma·m
his=mother 3ps-dim-be=two now
(n^{y}ca· mother) (xwak be two)

ṣa-·-n-yá·w.
there-3ps-dim-be=located

His mother (and he), the two (of them) now were there.

(8) q^{w}áqš-pi-c n^{y}a-kúr klxu ʔu-yú-m
horse-this-subj then-long boat 3ps-be-sb
ɬ^{y}-u-yá·w.
in-3ps-be=located

The horse for a long time had been a boat and they were in it.

ya· be located (inanimate)

(9) ṣka·-c lamé·s-i ya·-c
bowl-subj table-on be=located-subj

The bowl is on the table.

(10) wa-c ṣa-yá·-m
house-subj there-be=located-sb

p-w-á-m-c-a.
3ps-arrive-away=from-ppc-ter
(pwa he arrives)

He arrived at the house there.

(11) n^{y}awí·-c xmuk pu-yá·-m n^{y}pu-n^{y}
thing-subj be=three here-be=located-sb this-pns

š-u-cú·s-x ʔa-c.
3ps-pick=up-fut he=says-ppc
(šcu pick up, šcu·s several to pick up)

They said they would pick up the three things there.

(12) pu-yá·-m ʔu-wí·-c.
here-be=located-sb 3ps-see-ppc

He looked at (the things) here.

(13) n^{y}awí· xcaq yu-m pu-yá·-m
thing be=bad be-cont here-be=located-sb

n^{y}k-u-mís.
3ps-arrive
(n^{y}kmis coll. pl. of pa· arrive)

They arrived where there was something bad (i.e., at a bad place).

3. The verbs of position in the above sentences signify the positions of objects or of animate beings in space. Of these verbs, only one, ya· be located, happen, is employed to signify position in time, an extension of its employment for expression of position in space.[4] In Sentence 14 puyá·c has spatial reference and was translated by a speaker as "there it (the money) is".

(14) pi·s š-u-cú-c ṣxláp-i ʔu-sá-m
money 3ps-pick=up-ppc blanket-on 3ps-put-sb
(šcu pick up)

pu-yá·c.
here-be=located-ppc

He picked up the money and put it on the blanket there.

Actually, puyá·c is ambiguous in Sentence 14. puyá·c could also be interpreted as referring to the action of the preceding verbs: šcu pick up and sa put, with the translation "then it happened". That spatial rather than temporal reference was assumed by the speaker is probably due to the fact that ya· with temporal reference is used more frequently to express future, rather than present or past, actions and events. There is no ambiguity in Sentence 15, in which puyá·c has temporal reference only.

(15) pi·s š-u-cú-k sxláp-i ʔu-sá-x-m
money 3ps-pick=up-fc blanket-on 3ps-put-fut-sb
(šcu pick up)

pu-yá··c.
then-happen-ppc

He will pick up the money and put it on the blanket.

ya· is employed to express location in time far more frequently than it is employed to express spatial or physical location. Any one of the three locative-temporal prefixes, pa-, pu-, and sa-, may be affixed to ya· for denoting spatial reference. Ordinarily, only the two prefixes pa- and pu- are employed with ya· when the reference is temporal and, except when negated with luy-...-m, prefixation of one or the other is required. pa- signifies that the event will occur in the very near future or has just occurred; pu- signifies a more distant occurrence of the event, either in the past or in the future. Thus, there are only two forms of ya·, with the exception of the negative luyá·m, for expression of temporal location: payá· and puyá·, with the appropriate syntactic suffix or with no suffix.[5] The phrase in which the form occurs ordinarily follows the statement of the event, as in Sentence 15. When they follow the main verbs, payá· and puyá· are in effect asseverative, in that they affirm positively the events expressed by the main verbs. luya·m may be called a negative asseverative.

Since the subject of payá· or puyá· is the event itself and must therefore be different from the subject of the preceding verb, -m subordinating, which signifies that the following verb has a different subject, is normally affixed to the immediately preceding verb. payá· and puyá· may, like any verb, suffix -m subordinating, provided the sentence continues and is followed by a verb with a different subject. In fact, there are no restrictions as to suffixes; payá· and puyá· may take any suffix permitted for other verbs. However, in their function as asseveratives, the most frequent suffixes are -m continuative and -c present-past coordinating. Occasionally, no suffix is attached. Suffixation of -c present-past coordinating anticipates the completion of the event.[6] Suffixation of -m continuative stresses the continuation of the event. The absence of a suffix signifies a lack of reference to both the continuation and the completion of the event.

4. Employment of payá· and puyá· as asseveratives for expression of temporal location will now be illustrated.

In Sentence 16 location of the "going" in the future is precluded by the absence of -x future as a suffix to wa he goes. A nonrecent past is indicated by nʸakúr long ago. Therefore, puyá·, rather than payá·, is the appropriate asseverative.

(16) nʸa-kúr w-a-m pu-yá·-c-a.
then-long 3ps-go-sb then-happen-ppc-ter

He went some time ago; he has gone already.

The absence of a suffix to puyá· in Sentence 17 signifies an avoidance of reference to both the completion and the durativity of the work. The work may be of relatively short duration, perhaps only a single piece of work, or it may continue for an indefinite period of time. The speaker by omitting a suffix expresses his willingness to accept either type of work. The choice of puyá·, rather than payá·, signifies that the speaker does not expect the work to begin immediately. Suffixation of -m continuative to puyá· would indicate that the speaker expected the work to be more or less permanent. Suffixation of -c present-past coordinating would indicate that the speaker contemplated a single piece of work of relatively short duration.

(17) nʸawí· ʔa-rá-·-r m-nʸaʔís-k-m
thing ir-work-pl 2p-possess-fc-sb
(rar work, · pl)

nʸ-rar-x-m pu-yá· ʔi-c.
I...you-work-fut-sb then-happen I=say-ppc

If you have work, I will work for you.

The auxiliary verb yu be with -ṣ evidential often follows payá· and puyá· when -c present-past coordinating (but never -m continuative) is suffixed, and provides an emphasis to the asseveration. -ṣ evidential signifies that the speaker vouches for the occurrence of the action or event.

puyá·c in Sentence 18 suggests that only one "eating" will take place.[7]

(18) šcu-k kmi-k lu·p ma-s-x-m
I=pick=up-fc I=take-fc something I=eat-pl-fut-sb

pu-yá·-c yu-ṣ.
then-happen-ppc be-ev

I will pick it (money) up, take it, and we will eat something.

Suffixation of -m continuative to puyá· in Sentence 19 indicates the belief that there will be sufficient money for several "eatings".

(19) šcu-k kmi-k lu·p ma-s-x-m
I=pick=up-fc I=take-fc something I=eat-pl-fut-sb

pu-yá·-m.
then-happen-cont

I will pick it (money) up, take it, and we will (continue to) eat something.

If the speaker wishes to add emphasis to the asseverated event, -n^{y}pa emphatic, rather than -ṣ evidential, is suffixed to yu be, as in in Sentence 20.

(20) m-psa·-c ʔu-sú·p-m pa-yá·-c
2p-daughter-subj 3ps-marry-sb now-happen-ppc

yu-n^{y}pa.
be-emp

Your daughter has just got married.

Sentences 21-23 illustrate further the employment of puyá· with -c present-past coordinating.

(21) n^{y}ṣa-n^{y} ʔa-x-m pu-yá·-c yu-ṣ.
that-pns he=says-fut-sb then-happen-ppc be-ev

He will say that.

(22) pi·-n^{y} p-m-xir-x-m pu-yá·-c yu-ṣ.
this-pns 3po-2p-tie-fut-sb then-happen-ppc be-ev

This, you will tie him (with it).

(23) n^{y}a·km n^{y}awí· m-aʔí-x-m pu-yá·-c.
tomorrow thing 2p-do-fut-sb then-happen-ppc

Tomorrow you will do things (i.e., work).

Sentences 24-27 illustrate further the employment of payá· and puyá· with -m continuative.

(24) n^{y}a·-c ʔa·-k ṣu·-k man-k n^{y}wil-k
fpp-subj I=go-fc that-toward I=start-fc I=shoo-fc

pa-yí·-k wi·-x pa-yá·-m.
here-I=come-fc I=see-fut now-happen-cont

I will go and start from that side and come shooing and will see what happens.

(25) n^{y}a-c n^{y}n^{y}a·m ma-c pu-yá·-m.
day-subj be=very=much be=ripe-ppc then-happen-cont

It will take many days (for it) to ripen.

(26) ʔaʔí-k wi·-x-m pu-yá·-m.
I=do-fc I=see-fut-sb then-happen-cont

I will do it and see (what happens).

(27) n^{y}awí· l^{y}caš ʔi-x-m pu-yá·-m.
thing be=small I=say-fut-sb then-happen-cont

I will have a little something to say.

It is to be noted in Sentences 24 and 25 that -m subordinating is not suffixed to the verbs wi· see and ma be ripe, which immediately precede payá· and puyá·. Suffixation of -m to wi·x in Sentence 24 (but not to mac in Sentence 25) would produce a sentence acceptable to speakers, as is to be expected. Its suffixation in this sentence,

however, modifies the meaning slightly, in a manner not fully understood.[8]

5. Negation of an event or action may be accomplished by affixing lu-...-m negative to ya·, rather than to the preceding main verb, in which case the preceding verb is not permitted to suffix -m subordinating. luyá·m it does not happen is ordinarily employed only after a verb which suffixes -x future. Sentences 28 and 29 illustrate this use of luyá·m.

(28) ṣxá··pi-c px^{w}ay ʔa-x lu-yá··m.
girl-this-subj good she=says-fut neg-happen
(ya· happen)

The girl will not agree to it. (Lit., This girl will say "Good", it (her saying it) does not happen.)

(29) la n^{y}awí· ma-x lu-yá··m.
no thing I=eat-fut neg-happen
(ya· happen)

No, I will not eat. (Lit., No, I will eat something, it (my eating something) does not happen.)

6. payá· and puyá· are employed frequently at the beginning of a clause or sentence with -ṣ adversative, in which usage their semantic content is minimal. The contrastive, adversative function of the suffix predominates over the temporal element inherent in the two stems, which appear to serve the primary purpose of furnishing a means for attaching the suffix.[9] Sentences 30-32 illustrate the use of -ṣ adversative with payá· and puyá·.

(30) waɬ pa-yá··ṣ n^{y}a·k ra-·-r
yes now-happen-adv tomorrow I=work-pl
(rar I work, ·pl)

p-a-yá··k p-a-ṣáw-x-m pa-yá··c
3po-1ps-catch-fc 3po-1ps-eat=pl-fut-sb now-happen-ppc

yu-ṣ.
be-ev

Yes, therefore, tomorrow we will work, catch them, and eat them.

(31) pu-yá··k-ṣ n^{y}-m-p-a·-xír
then-happen-fc-adv pns-com-3po-3ps-tie

n^{y}-i·-x-m pu-yá··m.
I...you-give-fut-sb then-happen-cont

But I will give you something to tie him with.
(n^{y}mpa·xír "that with which one ties him")

(32) pa-yá··ṣ n^{y}-n^{y}a-wá-c xrpay
now-happen-adv 3pp-ap-house-subj be=near

pu-yá·ṣ pi·-k ya·-m
then-happen-adv this-toward be=located-sb

pi·-k ʔu-mán-c yu-m.
this-toward 3ps-arise-ppc be-cont

But their house is near here, but as it is on this side, they arise from this side. (Both payá· and puyá· occur with -ṣ adversative in this sentence.)

In Sentence 31 -k future coordinating is suffixed before -ṣ adversative because the verb of the next clause suffixes -x future. However, in Sentence 30 -k is not used, even though future action is indicated by suffixation of -x further on (paṣáwxm). Moreover, in Sentence 30, pa-, rather than pu-, is the prefix employed, although pu- is the more appropriate, since the temporal reference "tomorrow" is relatively distant.[10]

7. It would be expected that there are cognates to Cocopa ya· be located, happen in some, if not in all, of the other Yuman languages. Having examined all the material available to me, both published and unpublished, in the various languages, I have identified what I believe are cognate forms in Diegueño, Maricopa, Mohave, Paipai, Walapai, and Yuma. The cognates in these languages are employed, for the most part, to denote location in space, rather than location in time. However, the lone Diegueño probable cognate clearly has temporal reference. The reference appears also to be temporal in the several occurrences of a possible Paipai cognate. On the other hand, the Maricopa cognate, of which I found only one occurrence, signifies spatial location, as does the Walapai cognate in all of its occurrences. The reference is spatial also in Yuma, although there are two occurrences which may have temporal reference. The Mohave cognate has spatial reference in most occurrences, but there are several in which the reference is temporal.

The cognates are:

Cocopa	Diegueño[11]	Maricopa[12]	Mohave[13]	Paipai[14]	Walapai[15]
ya·	yaw	ðaw	ðaw	ya·w	yoʔ

Yuma[16]
ðaw

There are undoubtedly cognates also in Havasupai, Kiliwa, and Yavapai. However, I was unable to discover any in the material available to me in these languages.

In summary, cognates to Cocopa ya· be located, happen have been found in six languages of the Yuman family. The cognate forms in several languages may denote, like Cocopa ya·, location in time as well as in space. Cocopa, however, appears to be unique in employing its cognate as an asseverative, as has been described in this paper.

Notes

1. If the object or being is in motion, the verbs ʔa· go and yi· come are employed in a manner similar to the verbs of position. yu be, ʔi say, ʔaʔi do, and a few verbs derived from the verbs of position and motion can also take the temporal locative-prefixes.

2. A verb with a locative-temporal prefix can be only the main verb in sentences such as:

pa-·-wá-c ʔu-yú-ṣ.
here-3ps-sit-ppc 3ps-be-ev

He is here (sitting).

On the other hand, some verbs of the auxiliary class do not always attach a locative-temporal prefix when functioning as an auxiliary, e.g., pʔa· stand. It should be noted that, except before n- diminutive, vowels of these, and of all, prefixes are present only before the consonant which precedes the vowel of the stressed syllable.

3. Abbreviations used in the analysis of the sentences are: 1ps first person subject, 2p second person, 3pp third person possessive, 3po third person object, 3ps third person subject, adv adversative, ap animate possessive, com comitative-instrumental, cont continuative, dim diminutive, emp emphatic, ev evidential, fc future coordinating, fpp first person pronoun, fut future, ir indefinite relative, neg negative, pl plural, pns pronominal nonsubject, ppc present-past coordinating, sb subordinating, subj subject, ter terminal.

4. Repetition of any of the verbs of position is a common device for expressing passage of time in a given position, e.g.:

pa-·-wá-c pa·wác pa·wác pa·wác.
here-3ps-sit-ppc

He sat and sat and sat and sat.

p-n^{y}a-·-yák pn^{y}a·yák.
here-then-3ps-lie

He continued to lie here.

5. ṣayá· has occurred occasionally in texts to refer to events which happened in the very distant past.

6. -c present-past coordinating is mutually exclusive with -k future coordinating. -k is, or may be, suffixed when some following verb in the clause suffixes -x future. -c is suffixed, or may be suffixed, when there is no verb in the clause which suffixes -x future. -c also signifies that the next verb, if there is one, has the same subject. (If the subject of the next verb is different, -m subordinating is suffixed instead. -m, on the other hand, does not replace -k future coordinating when the subject of the next verb is different, but is suffixed following -k.) -c present-past coordinating when suffixed to auxiliary verbs, perhaps to all verbs, is, in addition, completive in aspect.

7. -c present-past coordinating in some contexts is semelfactive, rather than completive, in aspect, as is the case here.

8. Employment of -m subordinating is not appropriate in all circumstances for indicating that the subject of the next verb is different. In several instances where its affixation would seem appropriate and required as a "switch referent", the suffix is absent and its suffixation is considered improper or less preferable to its absence. For example, the referents can be switched, and are properly switched, without

suffixation of -m after -x future in the following sentences:

n^{y}-px^{w}ay-k px^{w}ay-x pu-yá·-m.
if-be=good-fc be=good-fut then-happen-cont

If it's all right, (then) it's all right.

n^{y}pu-n^{y} m-ya·-x pu-yá· m-a·-ʔá-m p-m-wa-c
this-pns 2p-get-fut then-happen 2p-3ps-he=says-sb here-2p-sit-ppc

m-yu-ṣ mapíl^{y}.
2p-be-ev now

You will get it, she said you who are sitting here now (will do it).

9. Other auxiliary verbs are employed similarly. The particular auxiliary verb chosen for affixation of -ṣ depends, as a rule, on the one used in, or which would be appropriate in, the context of the preceding clause or sentence, regardless of whether it was spoken by the same or by a different person. The anticipated auxiliary of the following clause may also determine the verb chosen for suffixation of -ṣ.

10. I have not had an opportunity to discuss these discrepancies with speakers. I feel certain, however, that puyá·kṣ would be preferable to payá·ṣ in Sentence 30, although I do not go so far as to say that payá·ṣ is "ungrammatical."

11. Diegueño yaw occurs in the word ta·yawcm, translated as "be" with a query, in Margaret Langdon, "Diegueño Dialects," p. 8, sentence 206 (June, 1975), typescript. The expected Diegueño cognate, however, is not yaw, but ya·w (Margaret Hoffmann [Langdon], "Diegueño and Cocopa: a Binary Comparison," p. 18 [1963], typescript).

12. There are two occurrences of Maricopa ðaw, as a main verb and as a following auxiliary, in [Hank] Harwell, "Some Remarks on the AUX in Maricopa, and like that," p. 2, sentence 19 (June, 1975), typescript. ðaw in Harwell's Sentence 19 has reference to the location of plural inanimate objects ("two watermelons").

13. Mohave ðaw occurs in Judy Crawford, "Mohave," pp. 1 (sentence 10) and 3 (sentence 45) (June, 1975), typescript. In both occurrences the reference is to the spatial location of singular objects ("it" [not specified] and "kernel"). There are also three occurrences of ðaw with animate plural reference: pp. 3 (sentences 47 and 50) and 5 (sentence 76). ðaw on p. 1, sentence 11, is the homophonous morpheme pick up.

ðaw also appears in the form nyidawm in Pamela Munro, "Two Stories by Nellie Brown," p. 1 (sentence 9 of the first story) [1975], typescript (to appear in the Native American Text Series volume of Yuman texts, ed. Margaret Langdon). From the translation of nydawm as "meanwhile", it appears that the reference is temporal. I am grateful to Pamela Munro for sending me a copy of her paper.

Many other occurrences of ðaw in forms with spatial and temporal reference have been extracted by Judith Crawford from her extensive collection of Mohave texts. I am grateful to her for bringing them to my attention. We have discussed this matter of ðaw in Mohave in considerable detail. She has given me permission to state that it is her opinion that what she has written sometimes ðaw and sometimes ða·w may actually represent two morphemes. The form has more frequently been recorded by her with a long vowel when the reference is to plural animate

beings, but with a short vowel when the reference is singular; the reference when singular may be animate or inanimate and spatial or temporal. However, further checking in the field is needed, she believes, to verify this opinion.

14. Paipai ya·w occurs in the form sakya:w (also sakya(:)w and sakya:wa) in [Judith] Joël, "Paipai," pp.2, 3 (June, 1975), typescript. Joël translates sakya:w in some sentences "therefore", in others "that's why". The translations suggest temporal rather than spatial reference.

15. Walapai yo? occurs in Werner Winter, "Yuman Language II: Wolf's Son——a Walapai Text," International Journal of American Linguistics 32: 17-40 (1966), with inanimate singular and collective plural reference. Winter translates yo? with singular reference: "be located", with plural reference: "sit". yo? with singular reference appears on pp. 25 (no. 17), 27 (no. 74), 28 (no. 88), and 32 (no. 197). yo? with plural reference appears on pp. 34 (no. 244) and 35 (nos. 276 and 279).

16. Yuma ðaw occurs in [A. M.] Halpern, "kʷakʷamá·ţ ?acaráv aðáwk, Kukumat Became Sick," (Yuma) manuscript, (English) typescript (June, 1975), with inanimate and animate reference, singular and plural; with inanimate singular (relativized with kʷ-) in par. 14, with animate singular in par. 29, with inanimate plural in par. 41, and with animate plural in par. 8, 9, 10, 17 (3 times), 19, 28 (2 times), 30 (2 times), 35 (nominalized), and 41 (2 times). ðaw in the last word of the title and in par. 1, translated by Halpern "became", is probably pick up. (ðaw pick up occurs in several other paragraphs and is translated either "pick up" or "take".) There are two additional occurrences of ðaw, both in sentences in par. 7 and in the form nʸa·ðáwəntik. In its first occurrence nʸa·ðáwəntik is translated "pick up". In its second occurrence, according to the translation of the sentence, the reference apparently is animate singular, but it may, on the other hand, be inanimate, with temporal reference, i.e., to the future event expressed by the following verb. It seems to me that nʸa·ðáwəntik in the first sentence could also have temporal reference, with the translation "then it happens that", instead of, or alternately with, "pick up".

Oblique and Non-Oblique Surface Case in Kiliwa Syntax[1]

Mauricio J. Mixco

1. Relativization

The definition of "Relativization" used here involves the embedding of a Relative Clause (henceforth, RC) which modifies an External Noun Phrase (NP_X) of the matrix sentence. The RC contains an Internal Noun Phrase (NP_i) identical with the NP_X mentioned above. A transformation deleting one of the Noun Phrases intervenes prior to surface structure. The following examples indicate that the deleted structure is the NP_X as the surface case suffixes (K) on the NP that surfaces are appropriate only for the NP_i; whereas the suffixes appropriate to the deleted NP_X are found postfixed to the RC as a whole. This is to be expected as an RC precedes the NP it modifies as in most SOV languages.[2]

Examples:

(1) t= x=pápu = sí?=m m-čhín=m
thing= sew = flesh=Inst. 2-shirt=Obj.

?-x=pápu=u?= t ñî·r
1-sew=Obl.Rel.=Nomin. Black
'The thread with which I sewed your shirt is black'

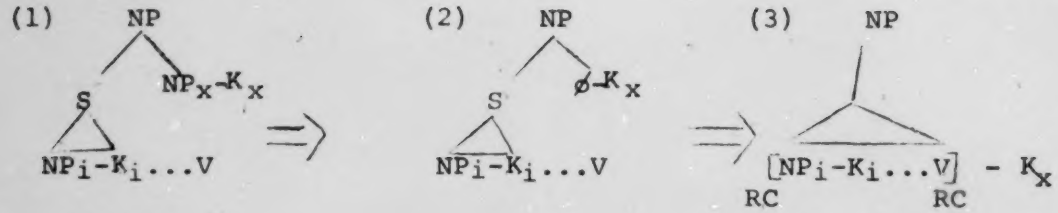
(2) ?ipâ· =si=m ñ-p- xmâ·n ø-sáw=u?=t
Person =Art.=Obj. my-yo-sibling 3-see=Obl.Rel=Nom.

ø-p-sít
3-m/p-Exit)
'A man my younger brother saw went out'

In the preceding examples the surface noun phrases /t=x=papu=si?/ 'thread' in sentence (1), and /?ipâ· =si=m/ 'a man' in (2) are marked with oblique case (viz. Objective) which would be ungrammatical were these noun phrases truly the surface subject of the sentences in question. The oblique is only appropriate if these NP are taken as the surfaced NP_i of their respective relative clauses.

The following schemata trace the transformational derivation of the relative clause surface structures just

described:



2. Oblique and Non-Oblique Relativizers

Kiliwa has a prefixed relativizer /k^w=/ cognate to a similar /k-/ or /k^w/ prefix in all the Yuman languages deriving historically from *k^w=. This prefix attaches to the last member of the kiliwa surface verb phrase upon deletion of the NP_X. The /k^w=/ prefix is grammatical only when the NP_i is the surface subject of the predicate of the relative clause in which it is contained. The following are examples of increasing complexity showing the function of kiliwa /k^w=/:

(1) ʔxaʔ=k^w=xâ·
(water= wh=Bitter) "Liquor, Tequila"

(2) ʔwaʔ = k^w=iʔ= híw
(house= wh= flies) "Airplane"

(3) ʔipâ·=si= t ʔxâ·l= haq= l k^w= yáq= t ...
(man=Art.=Nom. pine =Grove=Illat. who lie = Nom.)
"The Forest-dweller ..."

(4) máʔp=t k^w=kû· máʔ=m ø-sáw
you-Nom. woman you=Obl. 3-see
k^w= wá= m = č ʔírp m-pà·
wh= sit(Aux.) = Obl.=with 2-leave
"You left with the woman who was looking at you."

Kiliwa distinguishes between oblique and non-oblique relativization, for the latter /k^w=/ is prefixed whereas for the former a suffix /=uʔ/ is affixed to the last element of the relative clause and is in turn followed by the surface case suffix (K_X) of the deleted external noun phrase. The Oblique relativizer /=uʔ/ is allowed only when the NP_i is not the surface subject of the relative clause dominating

it, as is illustrated in the following oblique nominalizations:

(1) h-č?wír = táy = u?
(3-measure- Frequent=Obl.Rel)
'surveyor, measurer'

(2) s-kʷíl = táy=u?
(hand-twist- Frequent.=Obl.Rel)
'strainer, sifter'

(3) ?pá? p-?síl=u?
(Arrow Medio-Pass-Insert=Obl.Rel)
'quiver (n.)'

(4) ?kʷít ñá?p ?-th?íp ?-ha? =u?=m
(Something I I-thought 1-place=Obl.Rel=Obl.
?m?à= kw?n ø-spû. màt
(Person) Indef.= none 3-know not)
'no one knows what I am thinking'

(5) xám=táy ?-i?- pàt= u?=m kʷàt pà.
(watermelon 1- extract=Obl.Rel=Obl. Neg that
kʷ=msír= t = û· = mat ?pá? ?-i?-pàt= u?=
wh= one= Nom.=Be= not Arrow 1-Extract=Obl.Rel=
=s= kʷ?íp = u?= t = û· = p[3]
Irreal.=Fut=Obl.Rel=Nom.=Be=Declar.)
'The place I got the watermelons is not the same as the one I got the arrows.'

(6) má?p=t ?kʷít= si m-sáw m-i-wá=u?= m
(you=nom. thing= a 2-see 2-Prog. sit=Obl.Rel=Obl.
m-qháw
2-break)
'You broke the thing you were looking at'

3. /=wi?/ and /=wn/.

The distinction between Oblique and Non-oblique is carried beyond relativization in Kiliwa. The particles /=wi?/ and /=wn/ mark for Non-oblique and Oblique respectively on Indefinite noun phrases. In the following examples two interchangeable synonyms for "which" are noted -- viz. /pkʷî.t/ and /?ápu/.

(1) k^w=kû· = pk^wî·t = wi?= ñ-č-khû·w=u?
(woman = which = Non-Obl. = Nom.3 1-whistle=Quest)
'which of the women whistled at me?'

(2) ?ipá?= ?ápu = wn ?-čáqi=u?
(stick =which = Obl. 1-drop = Quest.)
'which of the sticks did I drop?'

The Non-Oblique postclitic /=wi?/ occurs with a similar function on predicate nominals as in the following examples:

(1) t = x=umâ·y = wi? = t
(thing = create = Non.Obl.= nom.)
'(Those are) the creatures (of God)'

(2) ?m?à· = wi? = t
((person) =Indef=Non-Obl.=Nom.)
'Who is it?'

(3) ?m?à· =wi?= t = û·
((person)=Indef=Non-Obl.=Nom.=Be)
'Who is it?'

(4) ñá?p k^w=mî·y = wi? = t
(I man = Non-Obl. =Nom.)
'I'm a man.'

(5) m-ñû· p-u mat= há? p-m-?î·-t màt
(2-quarrel-pl) seek med.pass-q-Say-pl not
pà· k^w=?lû·y = wi? = t = û· = khá?
that wh= evil = Non-Dbl.=Nom=Be=Emph.)

4. Oblique and Non-Oblique in Paipai.

The overt distinction between Oblique and Non-oblique is a heretofore unknown phenomenon in Yuman syntax. This is perhaps evidence that it is a Kiliwa innovation. Nevertheless Paipai which though it is a putative member of the Northern Arizona dialect group is a close geographic and cultural neighbor of Kiliwa, evinces some syntactic patterns which are strikingly reminiscent of the Kiliwa phenomena as the following examples demonstrate:

(1) plu·m ʔ-t-ñur= u= ha = ʔ
(pen I - write =Obl.Rel=Art=Obj.

m- yo = eʔ
2- take = Quest.)

'Did you take the pen I wrote with?'

(2) va·m ʔ-ma· kuǰa·r tñe·
(today) 1-eat spoon yesterday

ʔič-ʔma = u = m
thing -1-eat=Obl.Rel = with

'Today I ate with the spoon I ate with yesterday.'

(3) ʔmat m-ñ-wa wa=u=ha=č sne·l = k
(place 2-pss-house sit=Obl.Rel=Art=Nom. pretty=k)

'The place where your house is, is pretty.'

(4) ʔmat = xqaq ʔx^{w}a n-xk^{y}e= u = ha = l
(canyon) soldier(s) pl- pass=Obl.Rel=Art=Illat.

ʔ-yam
I - go)

'I'm going to the canyon through which the soldiers passed.'

As yet no Paipai data pointing to a symmetrical Non-Oblique marker have been found. Perhaps future research will turn one up.

Paipai and Kiliwa belonging to different branches of the Yuman family as they do, share no other innovations. It is not implausible that a Kiliwa innovation has been borrowed by Paipai as the result of long social intercourse between the two groups which essentially constitute a single complex social unit.

The syntactic borrowing must have taken place some time before the modern historical period, as Kiliwa is spoken by only one Paipai fluently, whereas most Kiliwa are at least minimally bilingual in both languages. Such a borrowing would indicate that at one time Kiliwa was spoken more extensively in Paipai families than it is at present.

NOTES

1. The research on which the date presented here are based was collected during field trips in lower California, Mexico. Kiliwa field work was sponsored by the University of California, Berkeley Survey of California and Other Indian Languages during the summers 1966-1970. The University of Utah Research Committee sponsored further field work on Kiliwa during the summers of 1974 and 1975. The Paipai data was collected under the same grant during these same field trips in Santa Catarina, Lower California.

2. Kiliwa surface case suffixes on nouns are the following: in addition to /=t/ "Nominative", there are /=l/ "illative", /=q/ "Allative/Ablative", and /=m/ "Commitative, Instrumental, Objective". The latter will henceforth be called simply the "Oblique" in contrast to the Nominative and strictly Locative cases mentioned above. Surface case is only loosely obligatory.

3. Note that this is a predicate nominal which accounts for the object case suffixed to "where I got the watermelons..." (xám=táy...) The Irrealis aspect in embedded sentences is expressed by the complex particle /=s=k^{w}ʔíp=/ post fixed to the clause. This provides independent syntactic motivation from Kiliwa for the analysis of Yuman predicate nominals, in which the predicate nominal is the subject complement of a higher Be. See P. Munro UCSD 1974 dissertation Topics in Mojave Syntax.

4. The first two examples involve predicate nominals with only the predicate surfacing. Note that neither "those" nor the upper verb "Be" are present on the surface. This is the result of an optional transformational process. See example (3).

Yuman *t

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Diachronic semantics remains an infant in the family of linguistic studies. Before a comprehensive theory can be even considered, many empirical studies in semantic change are needed. This paper is an attempt to reconstruct the semantics of one obscure morpheme found in the Yuman family, presumably of the form *t in Proto-Yuman. This morpheme has various functions in different languages of the family, but I will try to show how these functions are related semantically.[1]

The first part of this paper will present data to show the most regular synchronic functions of this morpheme in the different Yuman languages. I then group these functions into major types, adding other data where relevant. In these sections I make the implicit assumption that all functions arose from the same morpheme in the proto-language; later I attempt to make the diachronic developments explicit. Whenever possible I have used data from published or readily available sources rather than field notes or uncirculated manuscripts, but in any case all documents consulted are on file at the Yuman Archives, UCSD. In general I have retained the transcription used in the original as well as the English translation provided. However, I have normalized the morpheme glosses, when these were provided.[2]

Data

Havasupai (Ha)

1. -t 'prior-continuative aspect'
   k^{w}e-ha wím-ti-k ʔčyaq-k (HIN-FD-30)[3]
   s.t.-DEM start-t-SS choke-k
   'He'll start in on it and then he'll choke.'
2. tu 'just'
   pa-ha-č ha-k tu skwi-k-yu (KOZ-DIS-61)
   man-DEM-SUBJ DEM-LOC just stand-SS-be
   'The man is just standing there.'
3. yita 'but'
   k^{w}emaate sahó yíte máa-k-wi (HIN-FN)
   meat rotten but eat-SS-do
   'The meat was rotten but I ate it anyway.'
4. -t in certain time expressions
   vaviyútik (HIN-FN)
   'early'
5. -t on numbers
   hwakətik (HIN-FN)
   'both'

Walapai (Wa)

1. -t 'imperfective' (Redden); 'action prior' (Winter)
   há?-k č-wó?-t-m v-táay ?i? (WIN-WS-26)
   DEM-LOC CAUS-stay-t-DS DEM-grow say
   'When he had kept him there, he said, "He is very big."'

2. tu 'just'
   tú? yáam-k (WIN-WS-28)
   just go off-k
   'He just went on.'
3. -yit 'intend, would but'
   kwè má-yíta (RED-M-154)
   s.t. eat-intend
   'I'll eat, but later.'
4. -t in certain time expressions
   yék-t-m (RED-P-13)
   'this morning'

Yavapai (Ya)
1. -t 'temporal'
   tokatoka-č savakyuva uu-t-k čik^{w}aar-kiñ (KEN-KM-4)
   PN-SUBJ PN see-t-SS laugh-TNS
   'When Tokatoka looked at Savakyuva, he (Tokatoka) laughed.'
2. tu 'just'
   tu ?-man-k ?-man-m ?-yu-č-kəm (KEN-KM-5)
   just 1-fall-SS 1-fall-m 1-be-HAB-TNS
   'I'm always falling down.'
3. yitee 'but'
   tokatoka qwaθkəola maa yitee ke teyač um (KEN-DIS-115)
   PN apple eat but NEG corn NEG
   'Tokatoka eats apples but not corn.'
4. -t in certain time expressions
   hipáa-tə-m ?ə-smáa qiyat-ək ?i-yú-i (CHU-FN)
   night-t-DS 1-sleep much-SS 1-be-TNS
   'I fell asleep last night.'
5. -t on numbers
   ?n^{y}á páya-č huwák-at-ək vuqí θáw-ič-i (CHU-FN)
   my cousin-PL two-t-SS woman bear-PL-TNS
   'My cousins both had girls.'

Paipai (Pa)
1. -t 'and finally'
   sak ?-wa-k ?-wa-t wa?yoov (JOE-DIS-32)
   there 1-be-SS 1-be-t bored
   'I was there, and finally I got bored.'
2. -tka 'still, yet'
   m-man-tem-tka (JOE-DIS-33)
   2-get up-NEG-still
   'before you get up'
3. -t in certain time expressions
   ñ-xeekč-m tñaab-t-k yak ?-nyaam (JOE-KM-8)
   3/1-summon(PL)-DS in a.m.-t-SS here 1-go(PL)
   'They sent for me, and in the morning we left here.'
4. -t on numbers
   xwak-t (JOE-KM-14)
   'the two (of them)'

Mojave (Mo)

1. -t 'emphatic'
masahay kaaduuč ʔ-iyuu-p-t-č (MUN-DIS-100)
girl what kind 1-see-TNS/EMPH
'I saw some girl (or other).'

2. -taahan 'very'
ʔ-aar-taahan-k (MUN-DIS-58)
1-want-very-TNS
'I really want it.'

3. -t in "repetitive" suffixes
a. -nt 'again'
k-aʔwii-nt-k (MUN-DIS-5)
IMP-do-again-TNS
'Do it again!'
b. -nʸpat 'too'
ʔinʸeč ʔ-amaa-nʸpat-k (MUN-DIS-62)
I 1-eat-too-TNS
'I'm eating too.'
c. -tpat 'same'
manʸ m-suuvaar-nʸ ʔ-isvaar-tpat-k (MUN-DIS-62)
you 2-song-DEM 1-sing-same-TNS
'I sang the same song you sang.'
d. -tam 'this time'
nʸam humar taraʔuyv-tam-e (MUN-DIS-64)
now child behave-this time-AUG
'This time the kid will behave.'

Yuma (Yu)

1. -t 'assertive'
acén-t-aʔa (HAL-Y6-156)
'He did descend.'

2. -tum 'usitative'
amá-tum (HAL-Y6-156)
'He usually eats.'

3. -tan 'very, really'
ahot-tan-tum (CRO-FN)
'It's really good.'

4. -t in "repetitive" suffixes
a. -nti 'again'
ʔ-awé-tə-nti-xa (HAL-Y6-156)
'I will do it again.'
b. -apat 'oneself, in turn, also'
m-awé-t-apat-xa (HAL-Y6-157)
'You in turn will do so.'
c. -tam 'this time'
məšaraay-tan-tam-t-kʔa (CRO-FN)
'This time I'm really mad.'

Maricopa (Ma)

1. -t ' ʔ '
nʸaadanʸ yuutxa (ALP-FN-47)
'I'll see him (for sure).'

2. -t on auxiliaries
   ʔaʔetk 'I say'
   ʔadotk 'I went/was it' (ALP-FN-31)
   ʔwetk 'I do/did'
3. -nti 'too, again' (?)
   daš duntík (ALP-FN-61)
   'He did too.'

Cocopa (Co)
1. c- 'continuation'
   cuyúc (CRA-DIS-82)
   'I have been and am (doing something).'

Diegueño (Di)
1. t- 'progressive'
   ñaa tənay ʔimaa t-ipaa (BAK-TN-32)
   I yesterday dance t-be there
   'I was dancing yesterday.'
2. ti- 'emphatic' [Iñaja dialect]
   ti-kə-nak (JAC-RC-27)
   t-IMP-sit
   'Well then, sit down!'

Kiliwa (Ki)
1. t- 'progressive'
   ʔ-maa t-ʔ-waa (MIX-DIS-164)
   'I'm eating.'
2. t- ... t- 'durative'
   ʔ-ʔii t-ʔ-waa t-k^{w}á (MIX-DIS-165)
   'I kept on speaking.'

Summary and Additional Data

Examination of the data given in the previous section will reveal several recurring functions of the t morpheme under consideration. No one of these functions appears in every language of the family, and none can be reconstructed with virtual certainty for the family as a whole. Interestingly, however, semantic functions can be reconstructed for subgroups within the family.[4] There are undoubtedly several ways to progress through the data presented above. I will somewhat arbitrarily begin with those functions of t I am most certain of and proceed to those which are much more speculative.

The Pai languages--Havasupai, Walapai, Yavapai, and Paipai--have a verbal suffix -t which I will call a 'temporal conjunction'. This suffix is shown in the Data section as follows: Ha -t 'prior-continuative aspect', Wa -t 'imperfective/action prior', Ya -t 'temporal', Pa -t 'and finally'. The temporal conjunction connects clauses when the time of the first clause (whose verb contains the suffix) entirely precedes that of the second clause.[5] We may represent the syntactic environment for this suffix as follows.

$$[\ \ldots\ V\text{-}t(\text{-}k,m)\ ]_S \quad [\ \ldots\ V\ ]_S$$

A related function of t in the Pai languages is to mark time "adverbials". This function is merely a special case of the temporal conjunction, in which the time expression is syntactically a verb and generally forms a non-final clause, as in the schema above. The Pa suffix -tka 'still, yet' is undoubtedly related in the same way, but I lack sufficient data to investigate this completely. Note that the t portion of this suffix is segmentable, the -ka being an emphatic marker.

The second major function of t in the Yuman languages is as an emphatic morpheme. This is seen most clearly in the River languages, Mojave, Yuma, and Maricopa: Mo -t 'emphatic', Yu -t 'assertive', Ma -t (unglossed in Alpher's field notes--the only source of Maricopa data to which I have had access--but probably much the same as in Mo and Yu). The "emphatic" t is not restricted to the River languages, however; the Iñaja dialect of Diegueño has a prefix ti- 'emphatic' which is extremely common in the language.[6] There are also sporadic occurrences of a t morpheme in other languages of the family which may be termed 'emphatic', often for lack of any better term. The following Havasupai example (kindly supplied to me by Leanne Hinton) seems to contain such a morpheme.

Ha k^{w}e+já́ampa-k-yú-ta
s.t.-wonderful-SS-be-t
'How wonderful!'

Another possible example of this type was presented by Mauricio Mixco at the Yuman Workshop, for Kiliwa.

Ki pa-ña?-p-t ?-maa-t mat-t
PL-1-DEM-SUBJ 1-eat-PL NEG-t
'We didn't eat at all.'
'We just didn't eat.'

Few examples of this type have come to my attention for languages outside the River group.

Probably closely related to this emphatic function is a -t suffix on nouns in several Yuman languages. This use we may term an "augmentative", as it indicates the larger member of a pair, as in Yu max^{w}aa 'badger' and max^{w}et 'bear' (with vocalic ablaut as well as suffixation). See Langdon (1975) for additional examples and arguments that the -t must be a segmentable morpheme. Certainly the semantic relationship between augmentation and emphasis is not difficult to conceive. Equally likely is the use of -t on numbers in Ha, Ya, and Pa to emphasize the totality of that number. Such a function we may term "anti-partitive" to indicate that when it is suffixed to some number N, all of N is at issue, rather than only part of N. The appearance of t in this position is certainly not obligatory, but when it does appear, it serves to emphasize the anti-partitive nature of a number.[7]

There are additional morphemes which probably incorporate an emphatic t even though it may not be synchronically segmentable. For example, the Mo suffix -taahan 'very' and the Yu suffix -tan 'very, really' most likely contain the morpheme in question. Munro (1974) presents evidence of a verbal origin for the Mo suffix. This is also suggested by a comparison to the Co verbal element -xan^{y} 'be very (much)'. According to Crawford (1966) this form is a verb stem which may be suffixed to a main verb to form a loose compound. The phonological correspondences between Mo -taahan (and its phonetic variants) and Co -xan^{y} match perfectly, the

only difference between them being the t found in the Mo form. The Yu suffix is a reduced version of the Mo suffix. Another example of incorporated emphatic t is the stressed particle tu 'just' found in the Upland Pai languages. A good synchronic description of the syntax and semantics of this particle in even one of these languages would help us to determine its diachronic development.[8] In any case it is apparent from the examples given in the Data section that tu performs emphatic functions. Negative elements in several Yuman languages seem to incorporate an emphatic t as well. (Munro (1973) discusses the history of the negative in Yuman and shows how different syntactic devices--including emphasis--have served to reinforce negative elements.) These elements are Ha -t-ʔóm, Wa -taóm, Pa -t-em, Mo -mo-t, and Ki mat. Most sources consider the t to be a separable part of the negative, and in some languages the t alone may indicate negation, as in Havasupai negative imperatives (Leanne Hinton, personal communication). Other grammatical elements, such as the word duut 'more' in Yu and possibly Mo or the Mo 'demonstrative tense' suffixes -t=hə, -nt=hə, may contain emphatic t as well, but I understand these constructions so little that I cannot consider them adequately in this paper.

The third major function of t is to indicate imperfective aspect on verbs. This function is most apparent in Cocopa, Diegueño, and Kiliwa, all of which have a prefix on auxiliary verbs to indicate continuous aspect: Co c- 'continuation', Di t- 'progressive', Ki t- 'progressive'. (The sound change *t > Co c is regular.) There is an additional construction in Ki, t- ... t- 'durative', which is just a special case of the progressive, in which more than one auxiliary is present, each prefixed by t. Once again, t is here a prefix; however, since it appears on the auxiliary, it is probably safe to assume that it originated as a suffix on the main verb. (See footnote 6.) A similar construction is also present in the Yu -tum 'usitative' suffix. Langdon (1974) noted that this suffix contains the auxiliary verb yu 'be', which failed to undergo the regular *y > Yu d sound shift because it is unstressed. (This suffix has the form -tiyum after consonants, which shows the auxiliary verb more clearly.) Note that prior to grammaticization as a verbal suffix, this construction has the form V t-AUX, exactly as in Co, Di, and Ki.

The other evidence for t as an imperfective marker comes from the River languages, which have a set of verbal suffixes I have here called "repetitive". These suffixes include Mo, Yu, Ma -nt(i) 'again', Mo -n^{y}pat 'too', -tpat 'same', Yu -apat 'oneself, in turn, also', and Mo, Yu -tam 'this time'.[9] These suffixes quite obviously contain more than a single morpheme each, at least diachronically. Since these other morphemes (n^{y}, pa, etc.) themselves indicate repetitiveness in other Yuman languages, we cannot positively state that the t component contributes the aspectual meaning. In fact, Munro (1974) identifies the t ("at some level") with the emphatic t; this suggestion may well be true diachronically, although synchronically the emphatic t frequently co-occurs with the repetitive suffixes.

The final function of t in Yuman languages is very hard to characterize generally; in fact, my lumping together these various elements under a single rubric may constitute a specious generalization. A t

suffix is occasionally found in "modal" constructions in certain Yuman languages; however, this t is neither particularly common nor segmentable in all cases. The best case for a separable t morpheme in modals is the "dubitative" construction in the River languages. These forms are exemplified below.

Mo kuv?aw ?al^{y}?eta (MUN-DIS-76)
'Maybe it will rain.'
Yu ?-anaaka-l^{y} ?-aal^{y}?e-pa-ti (HAL-Y6-156)
'I (for my part) think we should sit down."
Ma ?al^{y}?etsaa (ALP-FN-88)
'I hope.'

But given the synchronic use of t as an emphatic morpheme in the River languages, these examples may represent nothing more than an emphatic t present in a modal construction. A few Kiliwa modals contain t, but the facts are difficult to interpret: Ki t may arise from both *t and *č, and cognates in other languages are difficult to find. For the sake of completeness, however, we may note that Ki t-uu-mit 'speculative mood' and s-k^{w}iit 'optative potential' might possibly belong in the modal set.[10]

Other syntactic elements in Yuman languages containing t have modal overtones, even though the primary functions of these elements are not themselves modal. For example, the Di t- 'progressive' prefix discussed earlier indicates more than merely continuous aspect. There are in fact two prefixes in Di which have this function, t- and p-. Contrast the following sentences.

Di xkwany w-mii p-kwaa (LAN-AV-3)
baby 3-cry p-AUX
'The baby is crying.'
Di xkwany w-mii t-kwaa (LAN-AV-3)
'The baby was crying.'

These sentences differ only by the choice of prefix on the auxiliary. Although the English translations show a difference in the tense of the verb, the real difference according to Langdon is that the former event but not the latter is immediately verifiable by the speaker. Thus, the t- prefix indicates an "inferential" mode as well as progressive aspect. When the main verb is suffixed by -x 'irrealis', the t-marked auxiliary indicates a type of "impotentive" mode, as in the following example.[11]

Di iipa-č w-waaw-x t-kwaa (BAK-TN-34)
man-SUBJ 3-holler-IRR t-AUX
'The man was going to holler.'

Another grammatical element having modal overtones is a contrastive conjunction found in the Upland Pai languages: Ha yita 'but', Wa -yit 'intend, would but', and Ya yitee 'but'. Comparative evidence suggests that the yi part might be related to a verb meaning 'think', leaving t and some type of "augment vowel". This construction has modal functions when it indicates speaker intention (see especially the Wa example) or some situation which is contrary to expectation. These functions might be related to "assertive" suffixes found in other languages. The Yu -t 'assertive', for example, is not only emphatic but also speaker-based. Thus, a common way of reporting the internal of a third-person (animate) subject is to append ?eta to the basic sentence; that is, the speaker denies first-hand knowledge of the internal state but asserts that he

heard it first-hand. A similar situation is found in Cocopa, where -c on a sentence-final auxiliary indicates that the speaker is certain of the proposition, that he has witnessed some aspect of it directly (Carole Nevers, personal communication). Compare this use in the following example to that discussed earlier for Yu.

Co šumá-x a-c (CRA-DIS-183)
sleep/3-IRR say/3-c
'He says he will sleep.'

This quasi-modal function of t is closely related to the evidentials used so frequently in Yuman.

Conclusions

The data and discussion presented above point to four primary functions of t in Yuman languages: conjunction, emphasis, imperfective aspect, and "modality" (with hedges on the last). Thus, we seem at first to be directly up against the infamous "Yuman problem": the use of a single morpheme to perform several syntactic/semantic functions. What I would like to suggest in this section, however, is that these functions are intimately related and in fact are all derivable from the emphatic function. Unfortunately, this discussion must be quite informal, since my understanding of how emphatic constructions work is anecdotal at best.

Note first of all that t is never required to express the notion of a temporal conjunction in the Pai languages. This fact is not too surprising, since grammatical marking is rarely absolutely obligatory in Yuman. However, t is apparently necessary in this construction when the speaker wishes to emphasize the temporal precedence of the first clause. Compare the following English yes/no questions.

Do you agree with his theory of hyperlexicalism?
Then you agree with his theory of hyperlexicalism?

The use of then not only presupposes prior discourse but also hints at the speaker's expectation and serves to emphasize the entire proposition. The occurrence of an emphatic morpheme in imperfective constructions is more puzzling, because it would seem that imperfective aspect is inherently somewhat emphatic. A possible explanation here is that emphatic constructions tend to lose their force over time, requiring newer emphatic devices. Thus, we might expect affixation of t onto morphemes which already had imperfective uses, such as auxiliaries in Co, Di, and Ki and repetitive suffixes in Mo, Yu, and Ma. Moreover, Margaret Langdon (personal communication) pointed out that prefixation of t onto auxiliaries in Co, Di, and Ki helps to maintain the phonological integrity of these auxiliaries and to prevent their grammaticization as verb suffixes (a process which occurred at least in the Yu usitative). Finally, emphatic t occurs in modal expressions occasionally to indicate the speaker's commitment to a certain point along a modal scale. Thus it is particularly common with epistemic modals such as the dubitative in the River languages and the Di inferential.

In much of the data discussed above, none of the functions can be completely divorced from the others. Consider, for example, the Upland Pai particle tu 'just'. The examples given in the Data section clearly

show emphatic uses of this particle, but they also indicate aspectual uses as well. Frequently, tu is used in a sentence when the verb indicates an action of some duration, as opposed to a punctual activity. Moreover, Munro (1974) noted that emphatic t in Mojave occurs most often with stative verbs. The relationship of emphasis to notions such as duration, stativity, and so on bear closer investigation. In this regard, it is instructive to note the conclusion of Steele (1974), who showed that a single set of morphemes in Classical Aztec indicates conjunction, emphasis, and modality. The explanation for this relationship may be language-specific; it does not appear to explain the Yuman data we have considered here. Instead, it may turn out that there are deep semantic reasons for this congruence, but more empirical studies of this type are needed before we can discover those reasons.

Notes

1. This research was born in an obscure footnote in Munro (1974): "The cognates to this -t- morpheme throughout Yuman are uniformly problematical; it is very difficult to try and reconstruct the semantics of this morpheme for Proto-Yuman." (131) Discussions with Leanne Hinton, Margaret Langdon, and Pamela Munro have solidified the ideas expressed in this paper; needless to say, however, they might not agree with these ideas and must not be held responsible for them. I would also like to thank Leanne Hinton and Sandra Chung for supplying me with examples from their field notes, as well as the Workshop participants who offered comments on the oral version of this paper. Research was financed by NSF Grant GSOC-7418043.

2. The following abbreviations are used: AUG augment vowel, AUX auxiliary verb, CAUS causative, COM comitative case, DEM demonstrative, DS different subject, EMPH emphatic, HAB habitual, IMP imperative, IRR irrealis, LOC locative, NEG negative, PL plural, PN proper name, SS same subject, s.t. something, SUBJ subject, TNS tense, 1 first person, 2 second person, 3 third person.

3. To conserve space in this paper, I cite data sources using the codes in "Bibliography of Yuman Languages". Entries in the bibliography to this volume are in regular bibliographic format, but the codes may be derived in the following manner: the first three letters of the author's name are entered before the first hyphen, followed by an abbreviated acronym of the title, followed by page reference, if present.

4. The reason this finding is of interest is that sub-groupings are based most typically on phonological correspondences and occasionally on shared morphological or syntactic constructions; having common innovations in semantic functioning of some morpheme to corroborate these subfamilies increases the liklihood of their being correct.

5. There are some variations of this construction, but they do not significantly affect the point at hand.

6. Margaret Langdon (personal communication) has informed me that other

dialects of Diegueño also use this prefix, but not as frequently as the Iñaja dialect; instead, most varieties of Di use the -s emphatic suffix. Incidentally, the fact that this morpheme is a prefix in Di but a suffix in the River languages should not disturb us too much. Although the specific mechanism involved here is not clear, many well documented instances of a suffix on one element becoming a prefix on the following element have been adduced for Yuman languages.

7. Given this situation, we might expect that pa(a)y 'all' would regularly take the -t suffix. Judith Joël (personal communication) has informed me that this is indeed the case in Paipai.

8. Such particles are decidedly rare in and uncharacteristic of Yuman languages, and this one is apparently an Upland innovation. Possibly it is a borrowing from a neighboring non-Yuman language.

9. Given the close ties of Ma to the other River languages, we might expect that additional field work will uncover more Ma cognates to these suffixes. The only one I have seen up to this point is -nti 'too, again'.

10. At the Yuman Workshop Mixco suggested that 'dubitative' might be a better term for 'speculative mood'. Just how this ties in with the dubitative in the River languages is not clear.

11. If the auxiliary of this sentence is prefixed by p-, the gloss is instead 'The man is about to holler (right now).', with no indication of modality.

THE REDUCTION OF idú: be IN MOHAVE

Judith G. Crawford

1. There are several verbal suffixes in Mohave which contain /u/. The fact that they are sometimes stressed and that the consonants of the suffixes can themselves be suffixes points to their further analysis. Some of these compound suffixes are: -um, -čum, -tum, -l^{y}um, -pl^{y}um, -sum, and -kum. /m/ in the suffixes can always be analyzed as -m durative or -m different subject. The presence of secondary stress on these syllables containing /u/ suggests that these suffixes may contain a bound verb root -u- or that /u/ may be a contraction of some verb root. There is substantial evidence from within Mohave, as well as from a comparison with other Yuman languages, that /u/ is a contraction or reduction of idú: be.[1] By means of the examples presented below I shall attempt to show that the analysis of /u/ in these various suffixes as a reduced suffixal form of idú: be is the correct analysis.[2]

In a few instances my Mohave consultants were willing to accept either the contracted or uncontracted forms.[3] But in most instances the replacement of /u/ with idú: was rejected. Rejection by consultants does not preclude the analysis of /u/ as a contraction of idú: be, but does suggest that the phenomenon is no longer productive and that this reduction is ancient.[4]

2. The uses of idú: be in Mohave, both as a main verb (Sentences 1-3) and as an auxiliary verb (Sentences 4-6), are illustrated below. It is not uncommon, especially for some older speakers of Mohave, to have a sequence of two, or even three, be verbs (Sentences 7-9). The use of idú: be following e?e say is illustrated in Sentence 10. idú: is not used exclusively with intransitive or stative verbs, as shown by Sentence 11. Whether present in its full form or in its reduced suffixal form, idú: be conveys an additional "argument", so to speak, for what precedes in the sentence. The verb idú: be denotes the existence of someone, something, a state, an activity, etc. Its translation is something like: "what has been said or done exists, is a fact".

(1) suk^{w}íl^{y} k-atáy-č idú-m iyém-k.
hawk rel-big-subj be-dur go-pp

The hawk which is big goes (next).

(2) ?ah^{w}áy-č idú:-k é-t-k.
war-subj be-pp say-ass-pp

"It's war," he said. (Lit., "War exists", he said.)

(3) ?alá:y-č idú-m.
bad-subj be-dur

It's no good.

(4) ?ahná:l^{y} ?-ičó: ?-í́-m v-?-iv́á-k ?-idú-m-e.
gourd 1-make 1-say-dur here-1-sit-pp 1-be-dur-say

I'm going to make a gourd now.

(5) havík ?-tayém v-?-u:v?ó:-k ?-idú-m.
two 1-go=pl here-1-stand=pl-pp 1-be-dur

We are both going.

(6) n^{y}á-n^{y} idó:-p-t-č idú:-č.
dem-dem be-obj-ass-subj be-pl

They do that. (Lit., their being that way is a fact.)

(7) ?an^{y}á:-n^{y}-č ahá:v-m v-iyém isá:m-k
sun-dem-subj go=down-away here-go see-pp

v-u:v?ó:-h-a m-isá:m-k dú:-m idú:-m-m-e
here-stand=pl-fut-end 2-see-pp be-dur be-dur-?-say

idú:-m.
be-dur

They see the sun is going down as they're standing there, you see.

(8) n^{y}atmaθáv-k idó:-t-k idó:-t-m makhá:v-č
morning=pl-pp be-ass-pp be-ass-dur Mohave-subj

vidá-č.
this-subj

Until morning that's the way it is (with) these Mohaves.

(9) hočqól á:y-e a?wí́:-m idú:-ə?è idú:-?e é-t-k
children give-say do-dur be-say be-say say-ass-pp

n^{y}-u:nú:-t-k idó:t-k idú:-m idú:-m.
there-be=present=pl-ass-pp be-ass-pp be-dur be-dur

He will feed his children, they are saying it (among themselves).

(10) ?ipá:-č i?í́:-m imá:k-θ-k ahá:v-ə?é
man-subj say-diff back-there-loc go=down-say

é-t-k va-e?é-t-k idú:-m.
say-ass-pp thus-say-ass-pp be-dur

The man says, "It will go down beyond that one," thus he says.

(11) ?amí:č ta?ahá:n-t ?ič ?-amá:-p-k ?-idú:-č.
long time very-ass something 1-eat-obj-pp 1-be-subj

I took a long time to eat.

In the following paragraphs each of the suffixes will be considered and illustrated.

3. The suffixation of -um alone is not frequent and is usually

translated has to, must.[5]

(12) a?wí:-u-m-?è.
do-be-dur-say

He must do it; (that's something) he has to do.

(13) isvá:r-n^{y}ti-ù-m-?e.
sing-again-be-dur-say

He just has to sing again; he's going to sing it again.

Closer in meaning to Yuma -um future possible (see fn. 5) is:

(14) isvá:r-pay-ù-m-e.
sing-again-be-dur-say

He'll probably sing again.

4. The suffixation of -čum to the main verb of a sentence usually adds strong emphasis to the statement. ("What has been said or done is a fact"). Sentences with -čum (or -pčum) always refer to either a completed activity or a stative situation. I have analyzed -p as object and -č as subject. -č serves to mark the verb or sentence to which it is attached as the subject of the verb idú: be.[6] The cognate suffix in Yuma is -cum, which Halpern (1947:157) glossed as emphatic. For Yuma ?an^{y}?i:pá:-cum I am a man! my Mohave consultants gave Sentence 15, with -pčum suffixed to idó.[7] Sentences 16-22 illustrate further the suffixation of -čum. Sentence 23, which has the full form of idú: be, is to be compared with Sentence 22. (See also Sentence 3.)

(15) ?-?ipá:-č ?-idó-p-č-ù-m.
1-man-subj 1-be-obj-subj-be-dur

I am a man!

(16) u:pá:m-p-č-ù-m.
fall-obj-subj-be-dur

It fell![8]

(17) hová-n^{y} ?ič k^{w}-irá:v hová-n^{y}
that-dem something rel-hurt that-dem

?-e?é-p-č-ù-m.
1-say-obj-subj-be-dur.

I mean the sick one![9]

(18) m-nakúṭ kór ipúy-č-ù-m.
2-father now die-subj-be-dur

Your father, now he's dead.

(19) píθ ?-amá:-p-č-ù-m.
now 1-eat-obj-subj-be-dur

I already ate. (Cf. Sentence 11.)

(20) mavár-č-ù-m n^{y}á-m ?-aé:-ṯ-k ?-a?wé-t-k.
flour-subj-be-diff dem-abl 1-mix-ass-pp 1-do-ass-pp

It is flour I mix with it.

(21) inál^{y}-k v-tayém-h-a ?amáṭ tó-m
down-pp here-go=pl-fut-end land middle-abl

k^{w}-tapéṭ-č-ù-m ?amáṭ ?aví:
rel-close-subj-be-dur land mountain

n^{y}askó-č-ù-m.
carrying=ring-subj-be-dur

They dropped low, going towards Land-in-Between Mountains, Carrying-Ring Mountain.

(22) ?ahóṭ-p-č-ù-m.
good-obj-subj-be-dur

It's good; it's all right.

(23) θen^{y}a?ák hová-n^{y} ?ahóṭ-č idú-m.
woman that-dem good-subj be-dur

That woman is pretty.

5. Very few examples of -tum occur in my notes and all examples I have were recorded in texts. In fact, one consultant stated that these forms were not used in conversation, but only in stories. -t is analyzed as assertive, which implies a statement of truth or fact and is mildly emphatic. The Yuma cognate is -tum usitative.[10] A usitative meaning is certainly implied by the context in Sentences 24-28, although it may not be evident from the translations given.

(24) in 1900 k^{w}-imá:n ?avá ičó:-č
in 1900 rel-start house build-subj

k^{w}in^{y}u:mí:-t-ù-m.
different-ass-be-dur

Starting in 1900 the houses were made different.

(25) kaná:v-k i?í:-č-t-u-m.
tell-pp say-pl-ass-be-dur

It has been foretold.

(26) hukθár l^{y}aví:-p-a í:-č-t-u-m.
coyote resemble-obj-end say-pl-ass-be-dur

You're just like a coyote, they say.

(27) n^{y}a-e?é-t-k kór n^{y}á-θ ?íč-l^{y}
when-say-ass-pp then dem-there something-in

tu?áč-t-u-m torís torís é-t-k.
turn-ass-be-dur bird=sp. say-ass-pp

When he said that, then there he turned them into killdeer.[11]

(28) amá-t-ù-m.
eat-ass-be-dur

He eats it.

6. There are several complex modal suffixes which contain /u/: -l^{y}um, -pl^{y}um, and -pul^{y}i. -l^{y} is desiderative. -p is object. -i is a reduced form of i?í: say. -l^{y}um was translated let (it be so that).

(29) a?wí:-l^{y}-u-m-?è.
do-des-be-dur-say

Let it be so that he can do it; let him do it.

(30) m-uréq-m n^{y}á-θ-č i?í:-l^{y}-ù-m.
2-leave-diff dem-that-subj say-des-be-dur

Leave him alone, let him say it.

The suffix -pl^{y}um connotes obligation or necessity.

(31) m-e?é:-p-l^{y}-ù-m.
2-say-obj-des-be-dur

You better say it! Say something![12]

(32) m-iná:l^{y}-p-l^{y}-ù-m é-t-k.
2-down-obj-des-be-dur say-ass-pp

"You better come down," he said.

(33) ?-a?wí:-č-p-l^{y}-ù-m.
I-do-pl-obj-des-be-dur

Let's do it; we better do it.

Only one example of -pul^{y}i appears in my notes:

(34) ivá:-θ-k isvá:r-p-ù-l^{y}-í.
come-contr-pp sing-obj-be-des-say

If he had come, he could have sung/he would sing.[13]

7. -s is a puzzling "modal" suffix in Mohave which can combine with u be and -m dur/diff. The Yuma cognate is -?aš evidential. "This suffix [-?aš] indicates that the speaker has witnessed the act" (Halpern 1947: 159). Although it is hard to see this meaning for all occurrences of -s in Mohave, it is clear that the information conveyed by -s is known to the speaker, and, if not at least first-hand, the speaker does have knowledge or evidence of the certainty or truth of the event.[14] I find -s suffixed only to the verbs idú: be, a?wí: do, i?í: say, and a?á:v hear, feel.

(35) iró:h m-é-p-l^{y}-ù-m m-a?á:v-č-pay-s-ù-m.
quiet 2-say-obj-des-be-diff he=you-hear-pl-?-evid-be-dur

You better be quiet or he will hear you.

(36) hačismá:č-p-k idú:-s-ù-m.
sleep=pl-obj-pp be-evid-be-dur

They all must be asleep.[15]

(37) pi?ipá k^{w}iθ?i:dé:-č idó:-p-k idú:-s-ù-m.
person doctor-subj be-obj-pp be-evid-be-dur

He must be a doctor.[16]

(38) ?-u:pá:-o-s-ù-m.
1-lie=down-be-evid-be-dur

I must lie down; I will have to lie down.[17]

(39) kúč kən^{y}u:mé u:?wév-k-è-t-e
something different do=pl-pp-say-ass-say

idú:-č-s-ù-m.
be-pl-evid-be-dur

Maybe they were doing something else; they must have been doing something different.[18]

(40) ivá:-k-è-t-e tkavé:k-p-k iyém-k
come-pp-say-ass-say go=back-obj-pp go-pp

idú:-s-ú-m.
be-evid-be-dur

He must have already gone; he must have come and gone back.

(41) ?-a?wí:-s-ù-m.
1-do-evid-be-dur

I'll do it.[19]

8. Unlike the preceding suffixes involving u be, -kum appears never to be sentence final. Mohave -kum is analogous to Yavapai -kyum/-kəm incompletive (Kendall 1975) and Diegueño -km/-kyum future-different subject (Hinton 1975).[20] The action of the verb to which -kum is suffixed must either be underway or must have already taken place prior to the action of the higher clause (see Sentences 42-48). n^{y}a- when, if is frequently prefixed to the verb of the subordinate clause. -k is present-past. -m is different subject. Sentences 49 and 50 illustrate similar sentences, the former with n^{y}a- and -kum and the latter with -kum only. -kum can be suffixed to du: (from idú: be), resulting in the form dú:kum so, then, as illustrated in Sentence 51. Sentences 52 and 53 illustrate the use of dúm (from idú: be) so, then, and should be compared with Sentence 54 (as well as Sentences 42-48) for further evidence of /u/ as a reduced suffixal form of idu: be.

(42) ?in^{y}é-č ?-ismá:-p-k-ù-m ivá:-č.
I-subj 1-sleep-obj-pp-be-diff come-subj

I was asleep when he came.

(43) tin^{y}ám-k-ù-m ?amó-č hacá-č hamusé-č
night-pp-be-diff sheep-subj 7=sisters-subj star-subj

utpák-m.
come=out=pl-dur

It's night and Sheep, Seven Sisters, stars come out.

(44) suyá:-k-ù-m isál^{y} satúč-m.
reach-pp-be-diff hand peck=pl-dur

When he reached in there, it (the bird) pecked his hands.

(45) kam?itó k^{w}a?akúy n^{y}a-m-á:y-k-ù-m ?in^{y}é-p
melon old lady if-2-give-pp-be-diff I-obj

?-i:wá-n^{y}-č ?ahóṭ-k-è.
1-heart-dem-subj good-pp-say

If you give the melon to the old lady, I will be happy.[21]

(46) n^{y}a-i?í:-k-ù-m é:-moṭ-t-k.
when-say-pp-be-diff say-neg-ass-pp

When he said that, they didn't answer him.

(47) numét-č a?wí:-n^{y}əpət í:-k-ù-m
mountain=lion-subj do-too say-pp-be-diff

kavá:r-k é:-t-m.
no-pp say-ass-dur

Mountain Lion wants to do it too, but he (Jaguar) said "no" to him.

(48) k-u:dí:k-k-ù-m ?-tasáw ?-a?á:v-o.
imp-bring-pp-be-diff 1-taste 1-feel-be

Bring it here so I can taste it.

(49) n^{y}á-v-č n^{y}a-iró:v-k-ù-m čamá:n-ve-n^{y}
dem-this-subj when-dry-pp-be-diff start-place-dem

čamá:n-m.
start-dur

When it is dry, he starts where he started (in the beginning).

(50) iró:v-k-ù-m ?amáy-k vadó:m a?wí: í-m.
dry-pp-be-diff up-loc aim do say-dur

When it is dry, he'll do it from there going on up.

(51) ?íč idú:-ə?è í-č-k-?e dú:-k-ù-m
something be-say say-pl-pp-say be-pp-be-diff

yayú:-č idó:-t-k-?è.
something-subj be-ass-pp-say

Somebody says it will happen and so it does happen.[22]

(52) humkumθí:v-č i:?é:-n^{y} n^{y}amá:r-k-e idú-m kór
dragonfly-subj hair-dem win-pp-say be-diff now

?asé: hová-č i:?é: iyú:-moṭ-m.
buzzard that-subj hair have-neg-dur

Dragonfly said he won his hair, so now Buzzard has no hair.

(53) ?-i:má:ṭ tačvasó:y-è dú-m pi?ipá:
1-body make=no=salt-say be-diff people

?aví:-k idík-č sitemú:l^{y} ?aví:-k
mountain-loc be=lying-subj tribe mountain-loc

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idík-č n^{y}-iθó:-è
be=lying-subj he=me-eat=meat-say

n^{y}-n^{y}-čamá:č-è é-t-k.
pl=obj-poss-food-say say-ass-pp

"I'll make my body good to eat, so the people on the desert, Indians on the desert, they'll eat me, I'll be their food," he said.

(54) va-?-a?wí:-k-ù-m pi?ipá:-č ?aví:-k
thus-1-do-pp-be-diff people-subj mountain-loc

idík-č sitemú:1^{y} ?aví:-k idík-č
be=lying-subj tribe mountain-loc be=lying-subj

n^{y}-u:nú:-k n^{y}-tayá:m-k ?íč
there-be=present=pl-pp there-move=pl-pp something

nsu:má:-è.
dream=pl(?)-say

"I'll do it so people on the desert, Indians on the desert going around there, moving here and there, will dream."

Footnotes

1. I have recorded both idú and idú: be. The vowel is /o/ (or /o:/) before /p/, /t/, /θ/, or /h/.
2. This is in accord with the analysis of analogous constructions in other Yuman languages. James M. Crawford, to whom I am grateful for discussing these problems with me, has told me that he had similar problems in Cocopa. He was at first inclined to consider Cocopa yu be a suffix, but concluded that it was not a suffix since the form always had the appropriate second and third person prefixes and speakers readily accepted his suggestion that the form meant be. The situation in Mohave is different, however, in that the reduced form /u/ is not inflected for first or second person. Redden (1966) treats Walapai -wi have and -yu be as weak-stressed verb suffixes. Kendall (1975) analyzes Yavapai (Tolkapaya) -kyum as -k egocentric, yu be, -m allocentric (e.g., ?ña-č ?məšay-kyum we're afraid). Hinton (1975) has presented examples of auxiliary reduction in Havasupai: m-smáa-ŋ-yu? Are you asleep?. Munro (1975) discusses the process of "auxiliarization" in Mohave, for which the examples presented here should lend support.

I have used the following abbreviations in the analysis of the sentences: 1 = first person subject or possessor, 2 = second person subject or possessor, abl = ablative, ass = assertive, contr = contrastive, dem = demonstrative (this/that), des = desiderative, diff = different subject, dur = durative, evid = evidential, fut = future, imp = imperative, indef = indefinite pronoun, loc = locative, neg = negative, obj = object, pl = plural, poss = alienable possession, pp = present-past, refl = reflexive-reciprocal, rel = definite relative, subj = subject.
3. One speaker stated that mavárč idúm and mavárčùm meant the same: It is flour. (See Sentence 20.) Pamela Munro (1975) has had more

success in eliciting such expanded sentences as: ?in^{y}eč ?ipuyp ?idu:č (idú:m) I died, I have died, which should be compared with the shortened ipúypč he died and Sentence 18.

I am grateful for the help given me on the Mohave language by the following native speakers: Nellie Brown, Rose Martin, Robert Martin, Emmett Van Fleet, and Duane Drennon.

4. There is evidence for a similar contraction of i?i: say to /i/ or /e/ (see fn. 18).

5. Halpern (1947:158) defines Yuma -um/-iyum as future possible: masó:-tə-nti-yum you might eat (meat) again. The form in Sentence 12 is phonetically [a?wí:yum?è]. I assume [y] to be euphonic. Note that -?e say receives secondary stress in this sentence.

6. This is in agreement with the analysis by Pamela Munro (1974) of -p and -č in Mohave -pč and ...-p...-č perfective sentences.

7. Also correct are ?ipá:č ?idóptč I am a man (?ipa: man, -č subj, ?- 1, ido be -p obj, -t ass, -č subj) and ?in^{y}ép ?ipá:č I am a man (?in^{y}e- I, -p obj, ?ipa: man, -č subj).

8. Cf. the Cocopa sentence: ?upámč ?uyúm he fell (-č present-past coordinating, yú be) (J. M. Crawford, personal communication).

9. Cf. étk va?étk íčùm that's what he said with Sentences 10 and 17.

10. E.g., amá-tum he usually eats, cakavár-tiyum he always laughs (Halpern 1947:156). Cf. Mohave humár l^{y}avíːtk idótm he acts like a kid, havidń:č idú:m he always does that, and Sentence 6.

11. toris toris bird sp. was variously identified as a sandpiper (Scolopacidae) or a killdeer (Charadriidae).

12. Cf. me?é:pl^{y}è say something (lit., I wish you would say something). -e is a reduced form of i?i: say, which is often used to express desire in Mohave.

13. Note that -l^{y} desiderative follows u be. Cf. ?an^{y}á: ?iyú:θk ?a?wí:l^{y}ə?è if I had time, I would do it.

14. -s evidential is illustrated in the sentence: kavátk?è han^{y}imasá:pk avá:mk idú:s miyú:mpk no, they're turning to whitish color as you see.

15. hačismá:č may be the collective plural for ismá: sleep. Cf. u:smá:m they are sleeping.

16. Also correct is: pi?ipá: k^{w}iθ?i:dé:č idó:psùm he must be a doctor.

17. The consultant added, "He lies down all the time and that's what he is going to do." I am analyzing -o (sometimes heard as [U]) also as a reduced form of idú: be. Cf. ?u:pá:ò I'm going to lie down (I'm so tired); I will have to lie down, ?u:pá:?è I'll lie down (-?e say).

18. -e is a reduced suffixal form of i?í: say (which has the variants i, e?e and e). I have recorded -e usually with secondary stress. -e was sometimes heard as [I] , sometimes as [ə] The complex suffix -et(e) appears to be cognate with Yavapai yite: but and with Walapai yit but (Kendall 1975). However, in my analysis so far I have not found -et(e) said in isolation, and so I am treating it as a suffix.

19. -sum may be preceded by -l^{y} desiderative: ?-a?wé:-p-l^{y}-o-s-ù-m I would have done it (had she asked me).

20. Cf. Diegueño: n^{y}a?a:m=k=m kəsa:w! After I go away, you eat! (-k dependent future, -m different subject) (Langdon 1970:160).

21. The following sentence uses -θ contrastive and idú: be: ?aq^{w}áqn^{y} spi?ipá:čk ?idú:m θu?u:nú:θ ?ahó:tə?e if we create this deer, we'll be all right.

22. n^{y}ayú: is the usual word for <u>something, anything</u>. Compare the following sentence with Sentence 51:

yayú:č	va-idú:-ə?è	í-č-k-ù-m	idó:-t-k-?è.
something-subj	thus-be-say	say-pl-pp-be-diff	be-ass-pp-say

(Long ago) they said something will happen and so (today) it does happen.

MOJAVE MODALS[1]

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0. Mojave has a well-developed system of verb suffixes which are used to express a number of "modal" concepts (necessity, obligation, possibility, conditionality, unfulfilled desire, etc.). Although some of the elements which make up this system seem to have cognates in other Yuman languages, the system itself appears to be quite exceptional: the distinctions which are expressed in Mojave sentences like those below do not appear to be made in the same way in other languages I've looked at. I hope that the presentation of this data (expanded from the discussion in my thesis, Topics in Mojave Syntax, section 1.8) will stimulate others to investigate these phenomena in other Yuman languages,[2] so that we can work out something about comparative Yuman modality.

1. Four consonantal morphemes appear in different combinations in the various Mojave modal suffixes:

p l^{y} s m

Possible sources and/or cognates for these will be discussed in section 3 below. A ə vowel may follow any of these elements, under fairly standard Yuman ə-insertion conditions, and two other fuller vowels appear in some of the suffixes, bringing the total of the modal morphemes to six:

p l^{y} s u m a[3]

The six elements do not all appear in each modal suffix, of course, but they always appear in the above order relative to each other. Various other elements show up in combination with the modals--these will be discussed as they come up below.

One might wonder why I have called the modal subcomponents "morphemes", since I must admit that I cannot give a precise meaning to any one of them. The ideas expressed by all of the combinations of these elements are semantically similar (all include some basic notion of "modality"), and there are patterns to be seen. (I discuss what I have figured out so far about the meanings of each element in section 4 below.) I assume, in other words, that the modal suffixes are segmentable, and that with further research we will be able to pin down more exactly the meaning of each component of them.

2. The various modal suffixes I have recorded in Mojave include the following.[4] (The terms "root" and "epistemic" are used below to disambiguate different uses of English modals: the root use of a modal like must, for instance, expresses the speaker's wishes about an unrealized event (as in the sentence You must go now), while the epistemic use expresses the speakers conclusions (as in You must be crazy).

a. psa/pəsa 'have to' (root), as in

(1) m-iyem-pəsa (2-go-pəsa) 'You have to go'

b. psum/pəsum 'have to' (root), 'must' (epistemic), or 'will' (root --the "promise" sense of 'will'). The three uses are exemplified in

(2) ?in^{y}ec ?-iyem-pəsum (I 1-go-pəsum) 'It's me that has to go'

(3) makhav-c ido-psum (Mojave-subj be-psum) 'She must be a Mojave'[5]

(4) ?in^{y}ec n^{y}-əvu:pu:k-pəsum (I 2=obj/1=subj-care-pəsum) 'I'll always take care of you'

c. pl^{y}u/p l^{y}u 'may', 'can' (root), roughly as in

(5) modi:l^{y} m-ama:-pl^{y}u (bread 2-eat-pl^{y}u) 'You can have some bread'; 'Eat the bread'

d. pl^{y}um/p l^{y}um 'ought to', 'should' (root)--

(6) piθ m-iyem-pəl^{y}um (now 2-go-pəl^{y}um) 'You'd better go now'

(7) ?-icama:c-pəl^{y}um (1-eat=pl-pəl^{y}um) 'It's time for us to eat'; 'We should eat now'

e. pəl^{y}-?e 'I wish...' The -?e of this suffix may be a variant of the "augment vowel" suffix -e/-ə, which can be preceded by a glottal stop, apparently with no change in meaning, or it might be segmentable as -?-e (1-say) 'I say'. The suffix -pəl^{y}-?e occurs frequently on verbs which refer to the speaker, as in (8), but also on verbs with non-first-person subjects, as in (9):

(8) ?in^{y}ec ?-ipuy-pəl^{y}-?e (I 1-die-pəl^{y}-?e) 'I wish I were dead'

(9) ?i:pa hova-c ipuy-pəl^{y}-?e (man that-subj die-pəl^{y}-?e) 'I wish that man were dead'

f. l^{y}-ə/l^{y}-e 'I wish...'; desiderative 'would that'. (The final ə or e is an "augment vowel", such as may follow many verb suffixes.)

(10) man^{y} ?ahat-c m-idu:-l^{y}-ə (you horse-subj 2-be-l^{y}-aug) 'I wish you were a horse'

In sentences (11) and (12), the 'would' clause is preceded by an 'if' clause whose verb is marked with the "irrealis" suffix -θ:

(11) ?-iyu:-θ ?-iθi:-l^{y}-ə (1-see-irreal 1-drink-l^{y}-aug) 'I wish I had something to drink'; more literally, 'If I had [something], I would drink it'

('see' is idiomatically used to mean 'have' in Mojave.)

(12) Judy-c iva:-θ ?-i:wa-n^{y}-c ?ahot-l^{y}-e (Judy-subj arrive-irreal 1-heart-dem-subj good-l^{y}-aug) 'If Judy were here [came], I'd be happy'

g. l^{y}u appears to mean (epistemic) 'could'--it only occurs with preceding idu: 'be', in the meaning 'I wonder if...', as in

(13) isma:-m idu:-l^{y}u (sleep-diff=subj be-l^{y}u) 'I wonder if he's sleeping'; apparently more literally, 'Could it be that he's sleeping?'

h. l^{y}um has been recorded only in the following sentence--its meaning is not yet clearly established.

(14) isvar-h n^{y}a-a:r-m m-oreq-t-m isvar-l^{y}um (sing-irreal if-want-diff=subj 2-let-emph-diff=subj sing-l^{y}um) 'If he wants to sing, let him sing (and then he might/will sing)'

i. l^{y}əs 'would' (conditional), as in

(15) ?-ivil^{y}v-k ?-idu:-θ-k ?-iyer-k ?-iyem n^{y}-iyu:-l^{y}əs (1-have=wings-same=subj 1-be-irreal-same=subj/dependent=future? 1-fly-same=subj 1-go 2=obj/1=subj-see-l^{y}əs) 'If I had wings I'd fly out to see you'

j. pl^{y}əsa/pəl^{y}əsa also means conditional 'would'--

(16) ?-utis ?-avk^{y}o:-k ?-idu:-θ-k ?-ak^{y}a:-pl^{y}əsa (1-gun 1-carry-same=subj 1-be-irreal-same=subj/dependent=future? 1-shoot-pl^{y}əsa) 'If I had had a gun I would have shot him'

(17) marikan hova-c ?ahu:t-m idu:-θ-k satəmu:l^{y}-n^{y}-c ?ic=nəku:muy-pəl^{y}əsa (American that-subj good=pl-diff=subj be-irreal-dependent=future? Indian-dem-subj rich-pəl^{y}əsa) 'If white men were honest, Indians would be rich'

(15)-(17) show that irrealis -θ- may be followed by a -k suffix which I once identified with the same-subject subordinator. On the basis of sentences like (17), where it is difficult to argue that 'be' and 'rich' have the same subject, however, I have decided that this -k is a dependent future (or, better, dependent unaccomplished) suffix like that found in, e.g., Diegueño.

k. p-t-l^{y}əsa/p-o-t-l^{y}əsa still another conditional 'would', composed of p...l^{y}əsa (as in (j)) plus "emphatic" -t-. Although I originally thought the -o- which sometimes appears in this suffix was significant, I now believe that it is simply a rounded ə. An example:

(18) mavar ?-iyu:-h modi:l^{y} ?-ico:-p-t-l^{y}əsa (flour 1-see-irreal bread 1-make-p-emph-l^{y}əsa) 'If I had some flour, I would make bread'

1. suma 'would' (habitual)/ 'always' (present habitual). This suffix and the following one are the only members of the set of Mojave modals which cooccur with tense markers (i.e., the only ones which seem to be "indicative"); they look modal in form, but, like English habitual would (When I was in the hospital they would wake me every morning at six), these suffixes have lost their real modal force.

suma occurs with perfective -pc/-p...c, as exemplified in (19)-(20):

(19) mat=kəh^{w}el^{y} ?-iyem ?-a:r-suma-pc (Parker 1-go 1-want-suma-tns) 'I always like to go to Parker'; 'I go to Parker all the time'

(20) ?akor modi:l^{y} ?-ico:-p-suma-c (then bread 1-make-p-suma-c) 'I used to make bread'

The complex tense suffix -p-c splits up when it occurs with various other nonfinal suffixes: -t- 'emphatic' plus -pc = -p-t-c, for instance. However, the variability shown in (19)-(20) is unique: we never see -t-pc, in other words. There does seem to be a difference in meaning between -suma-pc and -p-suma-c, as suggested by these examples: the first usually refers to a present habitual action, and the second to a past one. This patterning is not completely consistent throughout the whole of the data, however.)

suma may also be followed by -c, which is rare as a "tense" marker on non-suma sentences; here it seems to mean about the same as -pc:

(21) ?-tavaθk^{w}en^{y}-k ?-isma-suma-c (1-curl-same=subj 1-sleep-suma-tns) 'I always sleep curled up'

The next sentence, (22), shows suma combined with negative -m=p=ot=c, which includes the complex tense marker -pc, and thus behaves analogously to -p-suma-c above, with -suma- appearing before the final -c of the suffix:

(22) ?-isvar-m=p=ot=suma=c (1-sing-neg/suma) 'I never sing'

m. -səma-p=t=c 'like' (-p=t=c is the tense/emphatic suffix discussed in connection with sentences (19) and (20) above):

(23) ?-nakut-səma-p=t=c (1-call=father-səma-tns/emph) 'He's acting as my father'; 'I'm acting as if he were my father'; 'I always call him Dad'

(24) k^{w}aθə?ide:-səma-p=t=c (doctor-səma-tns/emph) 'He's acting like a doctor'

3. Identifying the modal morphemes.

3.1 p. This morpheme is mysterious in all its occurrences

in Mojave. It is probably of demonstrative origin,[6] but it has a number of cognates which have something to do with objects or object status. In Mojave, p marks the object case of one word, the pronoun 'me' ?in^{y}ep ('I' is ?in^{y}ec). A -p suffix also appears in the perfective construction, either in its full form with the existential auxiliary 'be', 'do', or 'say', as in

(25) ?-tapuy-p(-k) ?-a?wi:-c (1-kill-p(-same=subj) 1-do-c) 'I killed him'; 'I have killed him'

or in a reduced form in which the auxiliary is deleted:

(26) ?-tapuy-p-c 'I killed him'; 'I have killed him' (= (25))

I have analyzed this -p- as a sentential object marker, primarily on the basis of the evidence of sentences like

(27) ?in^{y}ec k^{w}əloyaw tapuy-p ?-iyu:-c (I chicken kill-p 1-see-c) 'I saw him kill the chicken'

in which the -p suffix follows the lower object clause k^{w}əloyaw tapuy '(he) kill (the) chicken'. (The different-subject marker -m may optionally follow -p in this sentence, just as -k (same-subject) may optionally occur in (25).) The reason I suspect that the modal p is the same as this "object" p is that variants of some p modal sentences show alternations very parallel to those shown in the examples above. For instance, consider

(28) k^{w}aθə?ide:-p-k idu:-sum[7] (doctor[verb]-p-same=subj be-sum) 'He must be a doctor'

The alternation between -p AUX-sum, as in (28), and -psum, as in (3), is exactly comparable to the alternation between -p AUX-c and -pc shown in (25)-(26).

3.2 l^{y}. I identify this morpheme with the locative case marker (Proto-Yuman *l^{y}, Mojave l^{y}), following the work of Langdon (e.g., 1970) and Gorbet (1973), who have shown that it has modal or "unrealized" connotations as a Diegueno complementizer. Another similar use of the morpheme is its appearance as part of the negative in Yuma and Maricopa (see Munro 1973), where the l^{y} may be shown historically to have originated as an unrealized marking on the negated clause.

3.3 s. This morpheme is totally mysterious to me. There are no related s's in Mojave, and I have not discovered any very likely cognates elsewhere (from *s^{y}, presumably, s in Northern Pai, s^{y} in the other Yuman languages). Various indicative (assertive?) verb suffixes in, e.g., Yuma and Maricopa have the shape -s^{y} and are possible candidates for cognates, since, as the discussion in section 4 below will reveal, s modal suffixes are characterized by a certain amount of semantic "strength".

3.4 m. This morpheme is also difficult to identify, although not

for a lack of reconstructable *m's! It does not seem profitable to relate this modal m to the comitative or directional *-m case markers or, probably, to the switch-reference marker; a possibility is the m of the negative (which I believe to have a non-negative origin historically; see Munro 1973), but I see no semantic justification for this. A better thing to consider, perhaps, is a strange m which appears in Mojave as a suffix on auxiliary verbs in some (affirmative) questions in which they apppear, as in (29a-c):

(29a) maki iman-k idu:-m (where come=from-same=subj be-m)
b) maki iman-k idu:-m-ə
c) maki iman-k idu:-m-e
d) maki iman-k idu:
e) maki iman-k idu:-ə
f) maki iman-k idu:-e
g) maki iman
h) maki iman-ə
i) maki iman-e

All these sentences mean 'Where did he come from?' As (29) demonstrates, the verb of a WH question in Mojave may optionally be followed by same-subject -k plus the appropriate existential auxiliary ('do', 'say', or 'be', as here); when the auxiliary is present, the m in question may optionally follow it. Any of these forms--the bare verb, the verb-plus-k-plus-auxiliary, or the verb-plus-k-plus-auxiliary-plus-m--may optionally be followed by one of the "augment vowels" ə and e. The m suffix in (29a-c) is thus a question marker of a very restricted sort, which just possibly might be identified with the modal m. (Note that the m of (29a-c) cannot be the same as the Mojave "tense" suffix -m (i.e., the different-subject marker--see Munro 1974), for two reasons--questions, both yes-no and WH, are marked by the absence of a tense marker (consider (29d-i); and, more importantly, "tense" -m may otherwise never be followed by augment -ə or -e.)

There are some other m's in other languages which have some association with questions (one might also consider the m question/indefinite prefix, which appears, for example, in Mojave maki in (29)--see Mixco 1975). But all in all it is difficult to say much about this morpheme.

3.5 Vowels. All I can really say about the ə, a, and u which appear in modals is that they too are mysterious. It is tempting to conjucture that they are reduced higher verbs of some sort, since some linguists would like us to believe that all modals originate synchronically as full main verbs; the u particularly invites identification with Proto-Yuman *yu 'be' (which, however, is du in Mojave, remember). One thing which is characteristic of Yuman verbs which shows up in the modal suffixes is ablaut, as in

(30) ?-ic?ayc-paysa (1-bury=pl-paysa) 'We've got to bury him'

which should be compared to (1) above or to

(31) ʔ-icʔay-pɔsa (1-bury-pɔsa) 'I've got to bury him'

psum/pɔsum, the modal suffix described in section 2b above, also has an ablauted variant, paysum. On the basis of examples like (30)-(31), which show a number contrast, I originally concluded that the ay of (30) appeared because of plural ablaut, but I have discovered since that this is not always the case (Judith Crawford first suggested to me that it might not be). Whatever the meaning of the ə to ay change, however, it certainly makes the vowel look like a possible remnant of some extremely archaic verb. At this stage, however, it's difficult to say any more about this or the other modal vowels.

4. What the modal elements mean, individually and in combination.

Sections 2 a-d above show that p plus either l^y or s plus either u or a plus, optionally, m--schematically

$$p + \begin{bmatrix} l^y \\ s \end{bmatrix} + \begin{bmatrix} u \\ a \end{bmatrix} + (m)$$

--refer to some event which is possible and which is desired, somehow, by the speaker. The choice of u versus a appears not to be highly significant, as far as I can tell. If s appears instead of l^y, however, the event is a matter of necessity or strong obligation (consider psa 'have to' and psum 'must'). If l^y appears, the reference is to permission or weak obligation (pl^yu 'may; should'; pl^yum 'should'). It seems from a comparison of psa/psum and pl^yu/pl^yum that the presence of m intensifies or strengthens the force of the rest of the semantic combination which precedes it.

The element l^y alone, or with a preceding p (as in $pl^yʔe$ and $l^yə/l^ye$ 'would that') has a desiderative meaning which extends to use as a sort of conditional (note the similarity in English between 'would' and 'would that'). The optimal conditional pattern includes an s as well, as schematized in

$$(p) + l^y + s + (a).$$

s does not cooccur with l^y in the first pattern shown above, but appears to mean something "stronger" than l^y. It seems that the appearance of s in the second pattern again shows a strengthening, if we may say that conditional 'would' is somehow stronger than desiderative 'would that'. (Examples of this pattern are $l^yəs$, $pl^yəsa$, and p-t-$l^yəsa$.)

Finally, the sequence

$$s + (u) + m + a + \text{TENSE}$$

appears in suma, the modal of habituality, and s ma 'like'. The semantic connection between habitualness and comparison seems to be some element of repetition. Unfortunately this use of the s and m modal morphemes does not fit in too neatly with the rest of the discussion

above.

From what I have just presented, the meanings of l^y and s, and to some extent m, are beginning to be clarified. m may be more than a modal force intensifier, since it also appears to mark non-conditionality, or rather to appear only in non-conditional environments. It isn't easy, however, to say much about the contribution of p or the vowels to the meanings of these suffixes.

Any further comments on this system, or my analysis of it, will be welcome.

Notes.

1. I've discussed the Mojave modal system with a number of people; I'd like to thank Brent DeChene, Margaret Langdon, Allen Munro, and Susan Steele especially. My analysis is obviously still tentative. I'm also grateful, as always, to my Mojave teachers, particularly Nellie Brown and the late Robert S. Martin. This research was supported by NSF grant SOC74-18043; the Academic Senate of the University of California, Los Angeles; the Department of Linguistics of the University of California, San Diego; and the Woodrow Wilson National Fellowship Foundation.

2. Yavapai is one of the few languages whose modal system has been examined in some detail (in Martha B. Kendall's paper presented at this workshop).

3. Judith Crawford records the modal u at least some of the time as o--I admit I hear it that way occasionally, but u seems more common, and the variation does not appear to be significant.

4. The abbreviations used in this paper are 1 = first person, 2 = second person, subj = subject pl = plural, irreal = irrealis, dem = demonstrative, aug = augment, diff = different, emph = emphatic, tns = tense, obj = object. I have tried to make morpheme-by-morpheme parenthesized glosses correspond exactly with the Mojave cited. ='s boundaries are used to separate parts of the text or gloss in either language which are known to be segmentable but which are not glossed separately in the text: e.g., p=t=c is a combination tense/emphatic suffix.

Since most of this paper is typed single-spaced, I have omitted the ˇ's on my c's (phonetically [ɤ]).

5. This sentence, and (10) below, follow the normal pan-Yuman predicate nominal (copular) structure: SUBJECT [here deleted] PREDICATE-c BE.

6. Sound correspondences should have a postvocalic demonstrative *p/v going to v in Mojave, like the normal Mojave 'near' demonstrative suffix -v. That's just one of the problems with this morpheme.

7. This word is phonetically [...hidu:ɔsum].

The 'Say' Auxiliary in Maricopa: Some Notes and Speculations

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Following the 'spirit of La Jolla,' my intent in this paper is simply to present some of the things I (think I) know, and especially some of those things about which I can only guess, in Maricopa syntax.[1] Hopefully the data and discussion here will suggest --and provoke-- interested comments, particularly from the Yuma side.[2]

Two primary functions performed by Maricopa's ?i 'say' auxiliary are to signal intentionality, following main verbs, and immediacy--typically in association with progressive aspect. Thus, for the former:

(1a) ipa-c man-?i(-m) və-va-k[3] (man-nom (a)wake/(a)rise-aux(-sub) prox-sit-tns) 'The man is trying/wants to get up'
(1b) ?-man-?i vu-va-k (1-arise-aux prox-sit-tns) 'I'm trying to get up'
(2a) anʸiṣ və?a {?i-m / e:-t+k} (3pr+nom walk {aux-tns / aux-just+tns}) 'He tries to get up'
(2b) anʸiṣ ku-xavik u-v?a ?i-m (3pr+nom nom-two pl-walk aux-tns) 'The two of them try to walk'
(2c) u-v?a-ṣ ?i-m (pl-walk-pl aux-m) 'They [plural] try to walk'

As indicated in examples 2a-c, a pattern alternate to that seen in (1a-b) will allow the auxiliary to stand free of the main lexical verb; in production, the auxiliary can occur more as a kind of proclitic, with a net loss of final affixes and initial person markers. Compare the following:

(3) manʸ-c nʸ-m-va-m ?ə-man-?i-m, ?ə-və-dik-ṣa[4] (2pr-nom when-2-come-ds 1-arise-aux-sub, 1-prox-lie-assert) 'When you came, I tried to get up, but I'm just lying here'
(4) manʸ-c nʸ-m-va-m ?ə-man ?i-vɨ-dik-ṣa

In these contexts, representing the conditions under which ?i may take affixes, or be affixed, is somewhat problematic, as the following material shows. Phonetically in a sentence such as (4), the /i/ preceding the demonstrative v- sounds overloud, even (after [?]) in word-initial position. But there are difficulties in regarding this loudness as being conditioned by some 'long' glottal stop (i.e., ?-?i-vɨ-dik-ṣa), which could presumably include the first person marker (here see again footnote (4)). In fact, sentences replete with added trial person markers and -m or -k tense suffixes are accepted only reluctantly; strings such as (5) or (6),

(5) anʸiṣ nʸvam, manʸc m-man-əm . . . m-?i-m . . . mə-və-dik-ṣa
(6) anʸiṣ nʸvam, m-man . . . mə-?i-m mə-və-dik-ṣa

are repeated back as

(7) anʸiṣ nʸvam manʸc m-man ʔi(m) vədikṣa

I have even been able to gain acceptance of

(8) anʸiṣ nʸvam m-man m-ʔi-vɨ-dik-ṣa

but this was interpreted as #. . . mə-və-dik-ṣa#, '. . . you were lying there,' and not as

(8') *anʸiṣ nʸvam m-man m-ʔi və-dik-ṣa

Whatever is happening here seems to be tied up in some way with the trial person marker added to the auxiliary (as in 5,6, 8 and 8'). For one thing, a bleeding of final suffix onto the following sequence (and this may be what occurred in sentence (4)), is a general feature of Maricopa speech, and of texts dictated at normal speed. For instance,

(9) #. . . nʸimkəcɨ-ṣ-k vinʸ-yan-di-t+k . . .# (@follow along-pl -tns dem-go along-here-ind) '. . . they came along passing them by . . .'

sounds like

(9') #. . . nʸimkəcɨṣ k$^{(w)}$inyanditk . . .#

with no apparent meaning loss, or misinterpretation, on the part of native speakers. It is also quite clear that too much gapping between ?i and the preceding lexical verb (as in sentences 5 and 6) will set up an interpretation on the order of

(10) #. . . mə-man-k mə-və-dik-ṣa# '. . . you were lying there, awake,'

thus completely nulling out any semantic contribution from ?i.

When sentences of type (1) and (3-4) are elicited or generated as imperatives, the -?i- component separates entirely:

(11) k-man-k kə-ʔi-m kə-a:v-k; xɔt-um e-sa e-t+um (imp-arise-ss imp-aux-ss imp-hear/sense-tns; good-fut say-hortative say-always) 'Come on --try and get up; you'll see-- it'll be fine'

But here only the initial verb marks for number (k-u-man-k, paucal; k-u-ma:n-k, plural), whereas even in highly ritualized usage,

(12) kə-di:-k k-u-na:k k-u-ma:v-k (imp-here+pl-ss imp-pl-sit+pl -ss imp-pl-eat+pl-tns) 'Come on, sit down, eat'

number is marked throughout the sequence. Otherwise, (11) would provide

strong grounds for granting ?i full lexical (or surface) verb status in this 'try/want' usage. For now, then, the boundary conditions around ?i will simply have to be described as 'interesting,' for which one may read, 'virtually unknown.' With this in mind, I shall continue to represent it as taking suffix positions on bare stems.

The limits of VP serialization tend to confirm -?i following main lexical verbs as semantically 'try to, want to.' First, mention should be made of 'like to Verb' type sentences as in,

(13) nʸa ?ə-na-k ?-mxan-t+um (1pr 1-sit-ss 1-favor-always) 'I like sitting'
(14) nʸa ?ə-pam-əm ?-mxan-tum (. . . 1-fall-ss . . .) 'I like falling (over, down)'
(15) manʸ (anʸa) və-dik-əm ma-mxan-tum (2pr (3pr) prox-lie-ds 2-favor-always) 'You like him lying down,' 'You like it when-(ever) he's lying down'

Also worth mentioning here is another construction, which probably involves irrealis -x(a)-:

(16) ?-ṣma-xə-lʸvi:-ṣ (1-sleep-irr-like-emph) 'I'm sleepy'
(17) mə-ṣma-x-lʸvi:-ṣ (2-sleep-irr-like-emph) 'Are you sleepy?,' 'Are you going to (go to) sleep?'

For 'try(ing) to Verb,' the 'say' auxiliary is usually elicited, in either of two forms:

(18) xalʸi?aw ta-t-poy-?i-m (cotton-tail caus-caus+die+pl-aux-tns) 'He tries to kill bunnies'
(19) kṣimto xaw-(t)-sa və?a-e:-t-yu (knee broken-advrs walk-aux-just-fact) 'His knee is broken but he's trying to walk anyway'

At present I am unable to account for the distribution of the two forms, although from the Mohave side, Pamela Munro finds that vocalic quality in such situations depends more than anything else on the suffix chosen. Example (2a) tends to confirm this analysis, since both forms were obtained, at different times, with suffixes constituting the only other difference.

Eliciting for serialization on the order of 'he likes to try to walk,' or 'they want to try to walk,' consistently yields strings like

(20) və?a-?i-m acpe-k (?-alʸ?i-yu)[5] (3-walk-aux-tns very-att (1-think-fact) '(I think) he really wants to walk,'

(said of the person in (19) with the broken knee); of an arthritic invalid, one could say:

(21) kr?ak-ɬṣ man-?im acpelʸvi:-k (?-alʸ?i-ɬṣ) (old man-nom rise-aux-tns very much-att (1-think-emph) 'The old guy really wants to get up bad (I think)'

Apparently then, the brunt of semantic load in the English verb sequence

is taken in Maricopa as intensifying the lexical-auxiliary construction, where in an ordinary 'like to' sentence we might expect introduction of the verb mxan.

The -?i auxiliary also seems to confer immediacy, at least in association with demonstrative-locational auxiliary constructions yielding progressive or continuing aspect:

(22) xa?a-ṣ n^{y}-v'aw-?i (tree [=cottonwood]-nom def-stand-aux) 'There's the tree' [i.e., very close by, and visible to speaker and listener]

(23) ipa-ṣ veṣ-k n^{y}-yam-?i (man-nom run-tns def-go by-aux) 'A man just ran by'

The sense of immediacy in sentence (23) contrasts neatly with the mood of total completion found in the following:

(24) n^{y}uko:r xat-c veṣ-k si-yam-yu (long past dog-nom run-tns dist-go by-fact) 'A dog ran by a long time ago (over there)'

Exact temporal specification is never, to my knowledge, super-critical in these sorts of situations, but one can arrive at a sliding scale of acceptability for the -?i, -yu and -um (simple future) suffixes through considering any co-occurring time adverbials. Thus, with an adverbial such as n^{y}uko:r ('long time past'), a trial string such as

(25) *n^{y}uko:r xat-c veṣ-k n^{y}-yam-?i

is regenerated as #. . .n^{y}-yam-yu#. Even with pisxay, denoting 'short time ago,' while an auxiliary structure such as #n^{y}-yam-?i# is acceptable, #n^{y}-yam-yu# is probably preferred. So pisa, 'now,' appears to be relatively the most appropriate time word to occur with n^{y}yam?i. Moreover, a sentence with ku:rim, 'soon, in a while,' obligatorily takes the -um future:

(26) ku:rim sin^{y}?ak həmer veṣ-k vi-yam-um (soon woman bare run-tns prox-go by-fut) @'Pretty soon a naked woman will be running by'

Sentences with the spatial measure ko:rxay, 'a (little) way's off,' will take an -?i final, however. One might say while travelling,[6]

(27) vakpal^{y} ko:rxay-k n^{y}-daw-?i (Phoenix [=va k^{w}-pal^{y}?]/city way's off-tns def-BE-aux) 'Phoenix is still farther off yet'

It thus appears that the temporal scope appropriate for, or denoted by sentences such as (23) is rather narrow: from the recent past, up to and including the happening present. The spatial scope may be similarly restricted to an area which is 'close by,' given the evidence provided in (22) and (27). By the way, one might take sentence (27) as relating to the time one has yet to spend travelling (cf. the confusion in English between further/farther). Should ko:rxay point (also?) to temporal scope, a neat and morphologically interesting sequence of time adverbials

would emerge (nʸuko:r---pisxay---pisa---ko:rxay---ku:rɨm), extending from distant past to near future.

Two other sets of facts ought to be mentioned, which may have some bearing on the notion of 'immediacy' that I am attempting to draw here. First, the demonstrative co-occurring with an -?i final (in these progressive auxiliaries), is, or contains, nʸ, a morpheme which seems to denote definiteness, without necessary regard to specificity. Consider savi, 'over there,' savanʸ, '(the) one over there; ipa, 'man, person,' ipa-nʸ(a), 'a/some certain man.' In context, nominals in -nʸ(a) are usually in oblique cases.[7] Compare also nʸ- 'when' clauses, the time adverbial nʸuko:r, and the conjunction nʸkvarəm [def-no(ne)-m??] 'given this, so (naught but) . . .'

Additionally, these -?i progressives with demonstratives other than nʸ- (or sinʸ-, vinʸ-) uniformly convert sentences containing them to questions. This applies whether or not question intonation is present. Consider the difference in impact between (28), (30'), (30''), and (29-30):

(28) pisxay veş-k vinʸə-yam-?i (. . . prox+def-go by-aux) 'He just ran right by,' 'He was just running by'

(29) pisxay xat-c veş-k si-yem-?i (. . . dist-go by-aux) 'Did a dog just zip by (over there)?', 'Was there a dog just scooting by?'

(30) anʸiş cuqʷer palʸ-k acpelʸvi:-k və-v?aw-?i (3pr+nom word/speech many-ss much(ly)-tns prox-stand-aux) @'Doesn't he talk a lot?,' 'Isn't he being pretty gabby?'

(30') anʸiş cuqʷer palʸ-k 'His words are many,' 'He talks plenty'

(30") anʸiş cuqʷer palʸ-t+k ?-al?i-əyu (. . . many-ind 1-think-fact) 'I think he talks a lot'

Now I am by no means attepting to represent the gamut of Maricopa question formation as being coverable so single-mindedly as in the above examples. (Usually present in questions are any of several WH forms having (-)kə-, along with rising interrogative intonation.) Furthermore many attempted non-future declaratives, focussing in some way on second person, have proven to be questions, despite my best efforts. We shall return below to this last point.

Secondly, in a fit of absolute desperation while attempting to elicit something (anything--just anything!) which might get at distinctions between sentences containing progressive auxiliaries such as #dem-position verb-m# versus those having #dem-position verb-?i#, I happened to ask the informant point-blank whether she was 'putting herself more' into either of the statements. Somewhat surprizingly, her answer was a quick 'Yes,' and unequivocal: the string with an -?i progressive meant for her, 'I'm saying it.' Reconstructing from my notes, her proffered scenario aptly illustrates the point. Suppose a coyote was lurking about, perhaps (out) near the chicken coop: as a watchful, keen-eyed observer, you might say to someone nearby,

(31) (k-i:yu-k) xatilwe-ş nʸ-v?aw-?i ((imp-see-tns) coyote-nom def-stand-aux) '(Look!) There's a coyote!,' '(Hey--) The coyote's right there!'

Upon disbelief --or, perhaps worse, inattention-- on the listener's part, and being (further) perturbed, the speaker might escalate with:

(31') xatilwe-ş və-v?aw-əm ?ə-?iy-m (... prox-stand-ds[8] 1-say-tns [deliberate, forceful delivery in the verb sequence]) 'Hey (I'm telling you), a coyote's right out there!'

Should this fail to spur the listener on, the speaker (now completely exasperated) would rage forth with,

(31") (kəxa?maya!) xatilwe-ş və-v?aw-əm ?-?iy-m, al^{y}-m-a:v-m-t+k m-va-k m-du:-m ((@Damn it all!) ... neg-2-hear/sense-neg-just+tns 2-sit-tns 2-BE-tns [forceful delivery in the second person portion]) @'(Hell!) There's a coyote right there-- and here you (go and) dummy-up!'

Granting my questionable field methods, and the dangers inherent as well in 'folk-analysis,' this whole sequence merits serious consideration as regards 'immediacy,' and simultaneously, authentication or verifiability as in, say, the performative analysis of J. R. Ross. For one thing, it is most difficult in Maricopa --at least under usual conditions-- to get sequences 'added-on' like the #m-du:-m# in (31"). Here the informant has given one voluntarily, and one must really ask how this can be.

At this point I shall offer a rather speculative amalgam of the two sets of facts outlined above. Let us assume that these (progressive) auxiliary constructions relate in some essential way to the nature of the sentence information content overall--specifically, the manner by which such information has been obtained or can be verified (a suggestion ultimately from Ronald Langacker, via Pamela Munro's thesis). Therewith, a tinge of 'immediacy' could be linked to 'SAY,' at some (relatively deep?) propositional level. Apparently that level is not wholly inaccesible though, judging from the informant analysis reported above. In fact, one of the things that the speaker seems to be doing (in 31'-31") is to convert the final -?i auxiliary to a surface verb, taking person markers and final affixes--in a situation increasingly reeking of flagrant authentication.

And, unless (otherwise) marked, the feature 'definiteness,' carried by the demonstrative (-)n^{y}- in auxiliary structure, attaches to ego.[9] In other words, the onus of verifiability typically falls to the lot of the speaker, at least where immediacy is involved. This still seems to be the force of (31"), even as the listener comes under a good deal of heat.

Where immediacy is involved, but specification is made for some particular place (away from the speaker??), the burden of proof shifts from ego to other, typically the one spoken to. Herein lies my own reading of why it is that progressive auxiliaries in -?i, but with si-, və-, or di- demonstratives ('(over)there,' 'proximate, here,' '(over) here, this way') invariably yield questions. Thus a string such as

(32) poş-ɬş veş-k vi-yam-?i 'Is there a cat running by?'

gets interpreted as '[You say] there's a cat running by' (try this on for size in English, with or without interrogative intonation). I shall go farther to offer this as a partial explanation regarding the difficulty, at least in Maricopa, of getting straightforward, non-future, non-imperative sentences involving (just) second person. As indicated above, I often get questions: by the analysis offerred here, too much responsibility for authentication attaches to second person (or to the informant??) to permit any other interpretation. Obviously, all of these issues bear further investigation.

Summing up to this point, we have seen ?i in essentially two different usages, the first closely associated with main sentence verbs and conferring intentionality, being semantically 'try to, want to.' In its second usage, as the final element in progressive constructions, the notion of 'immediacy' seems apt. Can these uses be seen in a more unified format? Perhaps so if we construe 'intentionality' as relating to a continuity of attempts (real or imaginary), extending through a time frame which closely circumscribes the speaker's observation and/or utterance.

There is some ancillary sociolinguistic information (mainly in my head and hardly codified) which may provide another bridge between these two usages. In normal Maricopa interchanges, /-?iym/ and /-?e:m/ tags are frequent, and seem to convey meanings on the order of 'I mean (it),' '(Better) Do it' or 'I mean now.' In any case, these are certainly akin to the senses picked up on by linguistic outsiders (e.g., non-Maricopa spouses, children adopted in from other tribes, and itinerant anthropologists), presenting an interesting blurring of the distinctions operating between intention, imperativity and immediacy. In terms of temporal designation, we would seem to be squarely in the fuzzy area between pisa '(right) now' and ku:rim 'soon, in a while.'

FOOTNOTES

1. I remain indebted to Polly Heath of Los Angeles for much of the data here, for her hospitality, and for her sustaining interest in her own language. Sipporah and Stanley Janis of Laveen, Arizona, have both contributed more than might ever be described toward my understanding of Maricopa. Likewise felt are the influences of Nick Sunn, Paul Bread and Jasper Donahue, who also have been patient. Gene and Bonnie Clayton have, on various occasions, provided unstintingly of themselves and their home.

2. Pamela Munro's generous comments, coming mainly from the Mohave standpoint, have consistently proved helpful in getting my ideas in shape, but nothing that I say here should be held against her. Susan Norwood and Don Crook have already inspired me to count my morphemes one by one: I hope they will find some of the data here useful.

3. Symbols used here which may cause confusion are as follows: c = č; ş = š; d = ð; -nom for nominative case; nom- for nominalizer; sub for subordinate; att for attributive; + between features which cannot (quite) be separated morphologically (one use being for vocalic ablaut);

@ for 'approximate gloss.' At times I have written /ɨ/ for what I assumed was 'really' [ə] adjacent to morpheme boundaries, assimilated toward /i/ near, say, /ṣ/. The sound in question may simply be what others might write as short /i/. As a general caution, readers should ever be wary of my representations of vocalic length.

4. Other data indicates that the person marker should occur immediately before the locational auxiliary, at least after the demonstrative vin^{y}-.

5. Cf. Halpern ("Yuma VI": 158), *a:lY?í/é 'to think, prefer, believe.'

6. As with the sequence in (31-31"), a gem like this is illustrative of Polly Heath's beautiful insight.

7. From the standpoint of Altaic linguistics, at least, this is exactly what one would expect. Some necessary goal for verbal action seems apposite; see also footnote (9) below.

8. I am equally disposed to regard -m here as a present/past marker (which would work out alright for the locational auxiliary *v?aw, 'stand, be located'), (thereby) putting ?ə?iym into a following sentence, loosely conjoined syntactically, but sharing the same deep propositional structure with the sequence preceding. Similar arguments would apply to the first and second person strings in (31").

9. Again from a (wildly) comparative point of view, personal pronouns in Mandarin obligatorily take spatial demonstratives whenever they are involved as the goals of motion verbs (e.g., lái wo-je+r (come 1pr-here+def) 'Come here;' chùyu ta-ne+r (go 3pr-there+def) 'Go to him.'). I mention this only as an example of something that happens in language when categories like spatial reference or specification, definiteness and person designation get thrown together.

"Not" in Yuman, I Say

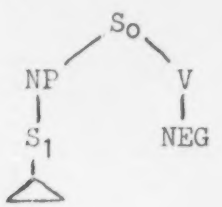
Carol E. Slater

There is a large amount of diversity in the mechanisms most commonly employed for negating an utterance in the various Yuman languages, and a number of studies have been conducted in this area of Yuman grammar. In this paper, concerned particularly with negation in K^{w}aca:n,[1] I shall reexamine Munro's analysis,[2] suggesting some revisions which it is hoped will lead to a fuller understanding of negation in K^{w}aca:n and which may also be useful in analyses of negatives in other languages. In addition, a negating mechanism seemingly independent of the normal negation patterns will be discussed in a speculative manner.

Munro's analysis of negation in Yuman is very insightful. In particular, I concur with her contention that the principal negation pattern in each language derives (historically) from Proto-Yuman *aw, which in most cases has been lost or at least greatly modified, and that most of the subsequent augmentations have resulted from a need to strengthen the negative or to prepare the hearer for the eventuality that the string of words he is hearing is going to be negated at the end of the utterance.

According to Munro, the underlying structure of negated sentences for some stage of (pre?-) Proto-Yuman was that represented by (a):

(a)



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the negative bearing the sentential (third person) subject marker, Ø. The initial m of the Diegueno negative ma:w she derives from a switch-reference suffix -m[3] which, as it was always present of the verb preceding negative *aw, was reanalyzed as a negative prefix. Later, the subject of the lower (negated) verb was copied into subject position in the higher clause, and the negative verb took on the person marker of the embedded verb. A final Diegueno modification involved marking the lower verb with the general non-indicative unrealized/unaccomplished marker -x in anticipation of the following negative. A sentence like (1), then, presumably had an earlier form approximating (2):

(1) ?-saw-x ?-ma:w
1-eat-irr. 1-neg
"I am not eating"; "I didn't eat"

(2) *?-saw-m a:w
1-eat-diff. neg .

This argument accounts nicely for the Diegueno data. The situation becomes much more complicated as we look at the other languages, however. In K^{w}aca:n, for example, the negative verb l^{y}?em is composed of three morphemes: l^{y}-, parallel to Diegueno x, presumably originated as an anticipatory suffix on the lower (negated) verb, having been reanalyzed as a loose prefix on the negative.[4] In a synchronic grammar of K^{w}aca:n, l^{y}- is probably best treated as a feature imposed on the lower verb by the negative and transformationally raised and attached to the negative,[5] as the imperative prefix kə- may intervene between it and the rest of the negative, as in (3):

(3) kə-namak l^{y}-kə-?em-ək
imp-sit in-imp-neg-tns
"Don't sit down" .

The second morpheme, not discussed at all by Munro, is ?e. In rapid speech, the negative is pronounced l^{y}əm, but in careful speech the glottal stop and e-quality vowel are always present. The source of this morpheme will be discussed below; it clearly is not simply a reduced form of *aw.

The third morpheme, -m, Munro treats in a manner parallel to the negative-initial m of Diegueno ma:w, i.e., as a switch-reference suffix which has been reinterpreted as a prefix on the negative verb. This treatment is somewhat problematical, as the m actually surfaces as the final, rather than the initial, element of the K^{w}aca:n negative. The same problem is pointed out by Munro in the Pai languages and in Cocopa, as illustrated in sentences (4)-(6):[6]

(4) (Walapai): úteóm
see-emph-neg
"I haven't seen it before"

(5) (Havasupai): kak ?-əwaa-ta- ?oom-iyu
pre-neg 1-sit-emph-1-neg-be
"I'm not sitting down"

(6) (Paipai): ma:-t-em
eat-emph-neg
"He didn't eat" .

In Cocopa, on the assumption that the u of the l(u)...m construction derives from *aw, she sets up a series of steps in the historical derivation which include the following progression:

SUBJ-VERB $\left\{ \begin{matrix} l^{y} \\ \text{Cocopa } l \end{matrix} \right\}$ - SUBJ - m - $\left\{ \begin{matrix} *aw \\ \text{Cocopa } u \end{matrix} \right\}$

becomes

SUBJ-VERB l - Ø - u - m(ə).

Here, she suggests that the switch from m-u to u-m might be due to metathesis or to harmony/conditioning of a preceding ə by the labial m.

I would like to suggest a treatment whereby the development of the negative in K^{w}aca:n (and perhaps also in the Pai languages and in Cocopa) is somewhat more divergent from that shown for Diegueno, partly because I find the idea of accounting for the final placement of m by metathesis to be unattractive. (Although we may call on harmony/conditioning to account for the u-quality of Cocopa l(u)...m, such an explanation obviously has no place in a description of the K^{w}aca:n negative, in which the vowel is clearly unrounded).

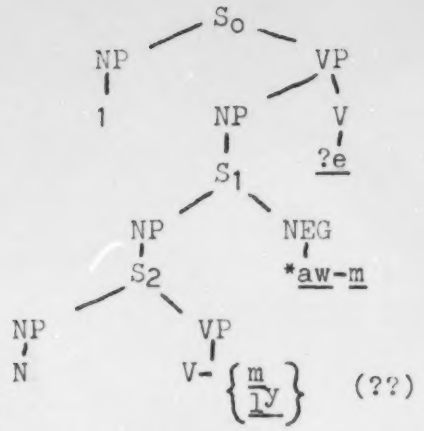
I maintain that the -m of k^{w}aca:n l^{y}?em (and perhaps of the Pai and Cocopa negatives as well) never existed as a prefix on the negative. Its source is problematic; it might even be related to -m "direction away from", the semantics of which contain a hint of negativity. In the hypothesis advanced here, however, it is treated as a switch-reference suffix which originated on the early negative *aw itself, indicating that the subject of the negative was different from the subject of a still higher verb, ?e, "to say", which functioned as an overt performative verb in earlier K^{w}aca:n. Whether this overt performative was a feature of Proto-Yuman or a later K^{w}aca:n innovation I am not prepared to say at this point.

The evidence for the one-time existence of an overt performative in K^{w}aca:n is compelling. Halpern[7] speaks of a suffix -a/-a?a which "occurs only in the last word of a sentence and appears to indicate nothing more that end of sentence." He goes on to note a suffix -e?e, which "apparently also indicates end of sentence, although in some cases it appears to have a vaguely optative force." These suffixes are clearly remnants of a higher predicate, grammaticized and more or less devoid of semantic content. Their most likely historical source would seem to be a full performative (note modern K^{w}aca:n ?e "to say"). As a performative adds little to the semantics of an utterance, its grammaticization is not surprising.

A K^{w}aca:n negative sentence with a performative would presumably have had a structure like that shown in (b):

80

(b)



(where -m is the switch-reference suffix).

The status of the -m of S_2, not present in the surface string, is less than clear. Several possibilities might be suggested. First, it may may have been deleted at an early (diachronic and synchronic) stage, when l^y became subcategorized onto the verb of S_2. Since the semantic subject of a negative always differs from the subject of the (lower) negated verb, the -m was redundant, and its deletion should not be considered surprising. Even in non-negative sentences where l^y is used with optative force, as in (7), the expected switch-reference -m does not show up in the surface string:

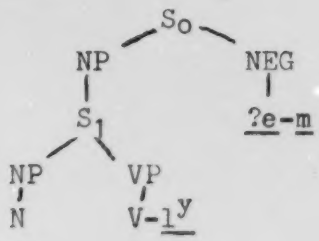
(7) ?-añaxat po:š ckyew-l^y ?-al^y?e-t-kə
1-dog cat bite 1-think-emph-tns
"I think my dog should bite the cat" .

Secondly, if subject copying does apply in K^{w}aca:n as Munro has shown that it does in Diegueno, then the derived subject of the negative would be the same as that of the lower verb. The -m, instead of being reinterpreted as a negative prefix as in Diegueno, would simply drop out. I have not seen any K^{w}aca:n data in which the negative verb is marked for person (except with the imperative prefix as in (3) above, which obviously derives from a higher predicate and is not a simple person-marker). Langdon[8] has indicated that such a marker is possible; in this case, subject copying would have to be considered a synchronic rule of K^{w}aca:n.

As the performative was grammaticized and its first-person subject disappeared, the -m of S_1 no longer functioned as a switch-reference marker (no longer being embedded under a higher performative). This -m, however, had for so long been associated with the negative that it had been reinterpreted as a basic (although still separable) element of the negative. At some point, the entire burden of negation was shifted onto this -m, perhaps due to the fact that *aw had acquired weakened semantic force (perhaps becoming hortatory u). The negative now lacked a vocalic stem; the now very

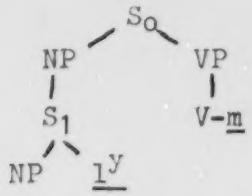
available ?e jumped in to fill the role, giving derived structure (c):

(c)



Actually, at this point we are speaking of a process which seems to be synchronically active. The reduction in S-nodes, as Munro points out, is a common functional process in Yuman. The speaker has the option of proceeding to step (c) above or of simply eliminating the performative relic and raising the lower verb into the higher clause to fill the role left by the disappearance of *aw. If the latter option is chosen, the resultant tree is (d):

(d)



Both structures are perfectly acceptable in modern K^{w}aca:n, and sentences (8) and (9) are equivalent in meaning (with perhaps a difference in scope: Halpern points out that (9) may be rendered as "You were invisible to me"):[9]

(8) n^{y}i:n^{y}-ayu: 1^{y}-?e-m-s
1=subj-see neg-tns
"I did not see you"

(9) 1^{y}-n^{y}i:n^{y}-ayu:-mə-tə-k
in-1=subj-see-neg-emph-tns
"I did not see you"

The status of 1^{y} in (c) and (d) is somewhat vague; I have indicated it as still suffixed to the lower clause, although it is clearly raised and prefixed to the higher verb after the (synchronic) imperative-attachment transformation has applied. When it is finally raised, of course, the lower S-node of (d) will be pruned.

Whether or not this sort of treatment can be motivated to account for the aberrancies noted above in the Pai languages and in Cocopa remains to be seen. I do find it a more satisfying treatment of the K^{w}aca:n negative than that proposed in Munro, although I would never have thought of it

had it not been for her work.

There is another seemingly unrelated mechanism available to speakers of K^{w}aca:n for negating a sentence, namely the use of the stem -var, often used with a ka- prefix (presumably related to pre-negative Yavapai ke, Havasupai kak, Paipai kos, Mojave k-, and Kiliwa k^{w}-); it is also used with the prefix va-, related to Diegueno pə- (K^{w}aca:n vavar "to fail", Diegueno puwar, L^{y}ə pu:war).

The interesting thing here is that there is a homophonous stem -var, used with the same prefixes, meaning "to be fond of." I wish merely to suggest here that these two stems are derived (diachronically at least) from the stem ar "to want", and that their semantic relationship is something akin to that of English "want" and "be wanting in" (meaning "be lacking in").

The following constitutes an exhaustive list of the utterances I have come across containing these stems:[10]

wan^{y}m-a:-var-v
with the heart?-caus.?-var-passive
"to yearn for, long for"

wa-k-avar "to be fond of, to like"
heart?-pre=neg?-var

mat wa:-ka-var-ək "They are fond of each other"
refl. heart?-pre=neg?-var-tns (also: "He is fond of himself")

va-var-ək "He fails"
?-var-tns

mat ?-ac-avar-i:
refl. 1-caus?-var-hortatory
"Let me be inadequate"; i.e., "let me die"

?a-ka=var "I love", "I want"
1-pre=neg?-var

ka-var-ta
pre=neg?-var-emph
"I don't want it"; "I am not able to do it"

m-i:do-n^{y} ?-iyu:-š ma-ka=var-am
2-eye-dem 1-see-tns 2-pre=neg?-var-tns
"I can see by your face that you don't want to do it"

ma-ka-var l^{y}-em-um ?-iyu:-š
2-pre=neg?-var not-hort? 1-see-tns
"I can see that you don't love him"

ma-ka-var-am ?-iyu:-š "I can see you don't want
2-pre=neg?-var-tns 1-see-tns to;" "... you love him"

Footnotes

1. In deference to the preferences of speakers of K^{w}aca:n, I have used this appellation rather than the term more familiar to linguists, "Yuma".

2. Munro, Pamela: "Reanalysis and Elaboration in Yuman Negatives". The present work was largely inspired by Munro's insightful treatment of negation on a Pan-Yuman scale.

3. There are two switch-reference suffixes, -m and -k. The former indicates that the subject of the embedded clause differs from that of the higher clause; the latter indicates that the two subjects are the same, in some sense; cf. Munro, "Comitative Conjunction: A Syntactic Reinterpretation in Yuman". For purposes of this paper, -m is refered to in examples as "diff".

4. This l^{y} seems to be related to the l^{y} "inessive/allative" (which functions either as a prefix on verbs or as a suffix on noun phrases); it is also related to the -l^{y} "optative" suffix. In examples here it is refered to simply by the label "in".

5. cf. Baker, "Tense Nonsense in Diegueno", for a parallel treatment of Diegueno -x.

6. I have taken these sentences from Munro, who attributes her Walapai data to Redden, her Havasupai data to Hinton, her Paipai data to Joel, her Cocopa data to Crawford, her Diegueno data to Langdon, and her Kiliwa data to Mixco.

7. Halpern, "Yuma VI, Miscellaneous Morphemes", IJAL.

8. Langdon, personal communication.

9. Halpern, "Yuma VI"

10. The first five utterances are taken from Halpern; the remainder are from my own field notes and from the notes of the K^{w}aca:n field methods class held in 1975 at UCSD.

Kwtsaan lyvii as an Enclitic

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The Kwtsaan (Yuma) verb lyvii has cognates in many if not all other Yuman languages. For example, there is Diegueño rewii "to be like, Havasupai vəluwi: "to be right", Yavapai lwi: "to be correct, to be like", and so on. The basic meaning of Kwtsaan lyvii is "to be like", but it has a number of other uses which are not obviously related to the basic meaning. This paper will treat one derived form of lyvii, the one appearing in the postverbal enclitic -xa-lyvii- "to want, to feel like". First I should like to consider the process of encliticization by which lyvii came to be suffixed to a verb plus the irrealis suffix -xa, and to discuss how this process apparently differs from what is considered to be the normal historical development for enclitics. In addition I should like to consider the syntax of -xa-lyvii-, in particular with respect to negation, and to compare this with what I feel to be related phenomena in English and other languages. It will be suggested that universal pragmatic considerations concerning requests and verbs of wanting may play a role in an explanation of the facts of Kwtsaan.

It may be useful, as background to the question of the encliticization of lyvii, to consider the syntax of lyvii as a main verb, and to compare this with the use of -xa-lyvii- as an enclitic. lyvii as an independent verb behaves much like any other transitive verb in Kwtsaan. Nominal subjects are always marked with the subject marker -ts, and definite common nouns are marked with -(ny)a when they are the object of the verb; proper nouns and indefinite common nouns are usually unmarked for object case. One of the consequences of these restrictions on the occurrence of these markers is that the most common type of sentence with lyvii, that translating "It looks like an X" where it is indefinite third person, and X is indefinite and nonspecific, has no nouns with case marking:

(1) iipaa lyvii-sh
man like-EV
'It looks like a man.'

But nouns marked for subject and object case do occur with lyvii:

(2) va-ts iipaa-ny-a lyvii-sh va-kw-v-aa-ny-a
DEM-SUBJ man-DEM-OBJ like-EV DEM-SUBR-DEM-go-DEM-OBJ
'That looks like the man who just arrived.'

lyvii takes personal pronoun prefixes and inflects for plural subject:

(3) maany-ts m-xuuvik-ly xat masiny m-lyvee-sh
you-SUBJ you-two-in horse you-like-EV
'The two of you are like horses.' PL

In general, lyvii can take only noun phrases as its complements. It is possible to predicate lyvii of actions, to say that what someone does is like something else, but the word referring to the action is either nominalized or put into a subordinate clause, with the subject of lyvii left unspecified. That is, "He sings like a frog" may be translated either as:

(4) ny-tsashvar-ny-ts xanyey lyvii-tum
POSS-sing-DEM-SUBJ frog like-HAB
'His singing is like a frog's.'

or as:

(5) nya-tsashvar-m, xanyey lyvii-tum
when-sing-DS frog like-HAB
'When he sings, it's like a frog.'

lyvii cannot appear after a verb suffixed with -k "same subject", as do, for example, the auxiliary verbs uuvaa- and oonoo-. Nor can it take sentential subjects in the sense of "(S) appears to be the case", as in "It looks like John's leaving", which is translated as:

(6) John-ts va-yem 'im v-yaa-t kw-lyvii-t
SUBJ DEM-go intend DEM-go-t ?-like-t

kw-lyvii- is obviously related to lyvii, but the two verbs differ syntactically in ways too interesting to go into at this point. For the present it is sufficient to note that lyvii by itself takes only nominals as complements.

The verbal enclitic -xa-lyvii-, on the other hand, appears only with verbs:

(7) mantsaan tskaw-xa-lyvii-ta
apple eat-IRR-like-EV
'I want to eat an apple.'

It can be suffixed to main verbs (as above) and auxiliaries:

(8) tsashvar v-oonoo-xa-lyvii-ta
sing DEM-keep on-IRR-like-EV
'I feel like keeping on singing.'

-xa-lyvii- can be used only when the subject of "want" is the same as the subject of the main verb. When the subject of the main verb is different, as with "John wants Mary to go", the main verb 'ar "to want" is used instead:

(9) John-ts Mary uu-yem-x-ny-a 'ar-ta
SUBJ NR-go-IRR-DEM-OBJ want-EV
'John wants Mary to go.'

-xa-lyvii- can never be used with noun phrases alone:

(10) mantsaan 'ar -ta
*xa-lyvii
'I want an apple.'

Unlike lyvii used as a main verb, -xa-lyvii- does not take pronominal prefixes and does not inflect for number:

(11) xuumar m-uu-yowv-xa-lyvii-m ?
child you-PL-have PL-IRR-like-EV
'Do youall wish you had a child?'

(In this last attribute -xa-lyvii- differs from all other morphemes which are used as verbal enclitics or auxiliaries in Kwtsaan, for example the negative ly'em- or -lyskii- "still":

(12) m-duu-ly-m-skii-k ?
you-act-?-you-still-EV
'Are you still doing it (acting that way)?'

(13) m-shmaa-ly-m-'em m-ado-t kw-lyvii-sh
you-sleep-?-you-NEG you-act-t ?-like-EV
'You look as though you hadn't slept.'

Why -xa-lyvii- should be aberrant in this respect is not clear to me at this point.)

To turn to the problem of the historical development of this enclitic: lyvii used as a main verb is very old, and could probably be reconstructed for Proto-Yuman (since cognate verbs appear in all branches of the family). -xa-lyvii- as a verbal enclitic, to my knowledge, occurs only in Kwtsaan and Maricopa (see Harwell, this volume); it must, therefore, be a relatively recent development. The question is, then, by what processes did lyvii become an enclitic, and why did it do so?

To begin with, there is abundant evidence for the historical development main verb > enclitic, when at some stage there existed a surface sequence Verb // Verb which could, in some contexts, appear without intervening noun phrases. To take a very familiar example: in Spanish the modern future and conditional tenses, which must synchronically be analyzed as verb suffixes, developed historically from the construction Verb Infinitive // haber "have", so that e.g. cantar // he > cantaré "I will sing". The process of cliticization or suffixation may thus be seen as a kind of resegmentation, by which a two-word sequence composed of an infinitive plus an inflected verb was reanalyzed as a single word. In Uto-Aztecan, to come closer to home, a class of adverbs now occurring in many languages as verb suffixes can be shown to occupy the same position they would have as independent verbs (see Crapo 1970 for details). Yuman languages also show evidence for this kind of development. Margaret Langdon (1974) has shown that the existential verb yu "be" is a part of the "imperfective" verb suffix in Yavapai. In some dialects it is still (partially) independent, in that it takes pronoun prefixes:

(14) ttθkwi-l-h '-no-k '-yu-m
wash-?-IRR I-AUS-SS I-be-TNS
'I'm going to wash them.'

But in some constructions it has apparently become totally encliticized and undergoes vowel reduction:

(15) '-hmi-k-yu-m ~ '-hmi-k-ə-m
I-tall-SS-be-TNS
'I'm tall.'

(For details and discussion, see Chung, this volume.)
Langdon also adduces some evidence for yu as a part of the Southern Diegueño suffix -čəm, which could also be interpreted as having imperfective meaning.

Assuming that lyvii as an independent verb is older than -xa-lyvii- as an enclitic, and given the amount of evidence for contiguous verbs becoming enclitics, one would like to say that the same kind of development took place in Kwtsaan. However, in the modern language a (surface) verb never occurs as a complement of lyvii; thus there is, synchronically, no surface syntactic string Verb-xa # lyvii which could be resegmented to Verb-xa-lyvii. However, there is evidence that at a slightly earlier stage of the language this pattern did exist. Some sentences from Abraham Halpern's field data show Verb-xa (#) lyvii, with the meaning "might (or might not)":

(16) e'e-xa lyvii-m (BJ-11-21-38)
say-IRR like-EV
'He might say it.'

It is not entirely clear from the above that the "might" construction is composed of two independent verbs, particularly in view of the fact that xa-lyvii- appears, in a text, as a separate word:

(17) v-i:di:-t-k nyi:xatɬ(a) axa-l^{y}vi:-m ny-a'av-k (Y I-12:77)
DEM-come-t-SS fall to pieces IRR-like-DS DEM-feel-EV
'He felt as though he were coming to pieces.'

(The gloss is my own.)
However, there is some comparative evidence for a cognate form of lyvii functioning as a verb auxiliary. Kendall (this volume) mentions that in Yavpe (NE Yavapai) lwi: "be correct, be like" can be used as a kind of modal auxiliary which personal pronoun prefixes:

(18) hyako kθye: m-'u:-h m-li:-a
white doctor you-see-IRR you-correct-TNS
'You should see a doctor.'

Note that here also l(w)i: occurs after the irrealis marker.

So there is some justification for setting up Verb-xa # lyvii as a construction in some earlier stage of the language. We have even seen that at an earlier date in Kwtsaan this construction, or something like it, existed with the meaning "might", which, as a kind of dubitative

future, seems to be a logical translation for the combination Irrealis plus "be like". What remains to be explained is why this construction should come to mean "want" for the speakers of Kwtsaan today.

I should like to attempt an explanation of this problem, but first I will present some additional facts about the syntax of -xa-lyvii- which may shed some light on the exact nature of the problem to be solved.

1) When -xa-lyvii- is negated, the irrealis marker -x(a)- remains, while lyvii appears to drop; compare:

(19) mantsaan tskaw-xa-lyvii-ta
apple eat-IRR-like-EV
'I want to eat an apple.'

and

(20) mantsaan tskaw-x-ly'em-ta
apple eat-IRR-NEG-EV
'I don't want to eat an apple.'

lyvii drops only when it appears as part of this enclitic; lyvii as a main verb can occur with the negative:

(21) kew-ny-ny-ts tsiyer lyvii-tum
cloud-DEM-DEM-SUBJ bird like-HAB
'That cloud looks like a bird.'

(22) kwe-ny-ny-ts tsiyer lyvii-ly'em-tum
cloud-DEM-DEM-SUBJ bird like-NEG-HAB
'That cloud doesn't look like a bird.'

One might think that there is some surface constraint against two verbal enclitics (or two enclitics with ly) occurring on the same verb, but this is disproved by the following example:

(23) tsiimats-ny-ts nya'im-p-m, '-tsashvar-xa-lyvii-lyskii-ta
dance-DEM-SUBJ end-?-DS I-sing-IRR-like-still-EV
'The party's over, but I still feel like singing.'

Moreover, both -xa-lyvii- and -ly'em- can apparently appear together in some cases:

(24) xuumar '-yuu-xa-lyvii-ly'em-ta
child I-see-IRR-like-NEG-EV
'I don't want to have a child.'

This construction is highly marked, and the difference in meaning between (24) above and

(25) xuumar '-yuu-x-ly'em-ta
child I-see-IRR-NEG-EV
'I don't want to have a child.'

is difficult to define precisely, except that (24) implies a stronger negation. As a first approximation to the meaning, I would relate this difference to the one in English between not like and dislike. I don't like apples could mean either that apples are not something the speaker particularly likes, or that they are something he specifically does not like; I dislike apples can have only the latter meaning.[2] Similarly, in (25) the speaker is merely denying a desire to have a child, while in (24) she is asserting her lack of desire to have one.

2) -xa-lyvii- appears consistently only with first- and second-person subjects. With human third-person subjects it appears to be optional. That is, a sentence like "John wants to run" can be conveyed either by:

(26) John-ts avesh-xa-lyvii-k 'e-ta
SUBJ run-IRR-like-SS say-EV

or by:

(27) John-ts avesh 'e-ta
SUBJ run say-EV

where 'eta is a quotative marker. In Kwtsaan a sentence like

(28) *John-ts avesh-xa-lyvii-ta

is ungrammatical, since all verbs of internal state (thinking or feeling) with third-person subjects must also refer to the subject's report of his state. In Kwtsaan you cannot say simply that someone feels a certain way, you must also say that he said he did.[3] At any rate, not only is the quotative marker 'eta necessary with verbs of wanting having third-person subjects, it appears to be sufficient in itself to convey the notion of wanting. That is, (27) seems to function in the same way as (26), although the former is more clearly a real quotation.

3) -xa-lyvii- is ungrammatical with third-person subjects which are incapable of speech. That is, creatures such as dogs, horses, and babies are generally considered volitional beings, but they cannot express their desires by saying so; in Kwtsaan "want" sentences with these subjects do not take -xa-lyvii- but rather a different kind of construction which means "seems to say":

(29) xat tsoqtsoq-ny-ts avesh 'e-t kw-lyvii-sh
dog-DEM-SUBJ run say-t ?-like-EV
'The dog wants to run.'

(30) xuumar-ny-ts ts-maa-w 'e-t kw-lyvii-sh[5]
child-DEM-SUBJ OBJ-eat-DES[4] say-t ?-like-EV
'The baby wants to eat.'

The above examples should make it clear that -xa-lyvii- is in some way connected with the speech situation. It is used only in those sentences referring to a positive desire and/or request. It is obligatory only with first- and second-person subjects, which are the only persons

directly involved in speech acts. And it is ungrammatical with precisely those third-person subjects which can never perform speech acts. But what does this connection have to do with the use of lyvii in a desiderative construction?

In order to answer that question it will be necessary to broach the subject of the social or pragmatic function of "want" sentences in Kwtsaan. But before doing so I should like to present what I feel are related phenomena in better-known languages, particularly English. Many if not all Indo-European languages have "polite" forms to express the notion of wanting, which, in non-negated sentences, are synonymous or nearly so with the word meaning "want", but which are not synonymous with "want" in the negated versions of the sentences. For example, in English a sentence like I'd like to go swimming means much the same thing as I want to go swimming. That is, despite the conditional in the first sentence and the indicative in the other, the two sentences refer to the speaker's present desire to go swimming. On the other hand, the negated versions of these sentences, I wouldn't like to go swimming and I don't want to go swimming, do not mean the same thing (in their most common acceptations); only the second refers to the speaker's present feelings, while the first refers to the way he would feel in the event that an unspecified situation should arise. In other words, in the non-negated sentences the conditional is interpreted as though it were indicative, while in the negated sentence it remains a conditional. In other European languages either the conditional or the past subjunctive mood is used as a polite form with the verb meaning "to want"; it is most commonly interpreted as present-tense in non-negated sentences, but in negated sentences it retains its "basic" or original meaning.

I believe it is possible to explain the differences between the non-negated and the negated sentences with would like and its equivalents by reference to the social function of desiderative sentences. I want x is usually interpreted as a request (or demand, depending on the situation); at any rate, saying this places some obligation on the hearer to satisfy the speaker's desire. Thus, in a situation where the speaker either does not want his addressee to satisfy his desire, or does not want to appear as if he did, he must refer to his desire in a more indirect manner. In English and most other Indo-European languages the conditional or subjunctive mood is used to accomplish this indirectness. Saying I would like x is a way of suggesting that one does not, at present, want x (but might do so later). Susan Steele (1975) calls this function "dissociative", because, when used in a request form, it has the effect of abstracting the speaker from his request. In the case of the Indo-European forms, the abstraction is either on the temporal or the aspectual level; past-tense forms assert that the action is over and done with, while subjunctives and irrealis forms (as in Uto-Aztecan) assert that the action is, in some sense, not real or non-existent.

The reason that the negated versions of these forms do not have the same meaning should be obvious. I don't want x could never be interpreted as a request, or as a demand, or as anything other than an expression of the speaker's emotions (under normal circumstances); therefore, I wouldn't like x need not be used as a polite form, and has only its original meaning.

In Kwtsaan the situation is more complicated. It is true that, as in many other Yuman languages, the irrealis marker -x- is associated with verbs of wanting, but, to my knowledge, it cannot be used alone with unambiguously desiderative meaning. There are certain constructions in Kwtsaan where the irrealis is the only desiderative marker, e.g.

(31) nyaa ka-lyvii-m Mary [illegible]-yuu-x-ny-a '-shamdii-ta
hour WH-like-DS NR-see-IRR-DEM-OBJ I-don't know-EV
'I don't know what time I want to meet Mary.'

but this kind of construction appears to be possible only with nominalized verb forms, and is never unambiguously desiderative (i.e., (31) can also mean "I don't know what time I will meet Mary").

In the -xa-lyvii- enclitic it is the conjunction of xa and lyvii which means "want", but only lyvii drops when "want" is negated. In this respect lyvii appears to function in the same way that the conditional in English and subjunctives in other languages function in conjunction with verbs of wanting. The question is, therefore, what does lyvii have in common with tense/aspect markers which allows them to accomplish this "dissociative" function? I would suggest that the relevant semantic feature of these morphemes is the fact that they all have negative presuppositions. The use of a conditional or subjunctive marker in a sentence requires a presupposition that the action or state predicated in the sentence has not taken place (or does not exist). In order to say John would go to Boston (but he hasn't got a car) one must know, or presuppose, that John has not gone to Boston. Using lyvii also requires a negative presupposition, but of a slightly different sort. In order to say x is like y, one must presuppose that x is not the same as y. Consider the absurdity of saying George Washington is like George Washington, or even George Washington is like the first president of the United States. What unites these two kinds of negative presuppositions is a kind of metaphor: lyvii, requiring the presupposition x is not (equal to) y, is used as though it had the presupposition x does not exist required by the use of conditionals and subjunctives. It is not at all uncommon for expressions of equality to be treated as expressions of existence; the English copula, for example, has both meanings. What is unusual is that, in this case, the expressions of equality and of existence are not a part of the overt, or asserted, semantic structure of the morphemes in question, but rather of the presuppositions which they require. However, there is some evidence for the same phenomenon in English with like, which in some senses has a kind of nonfactive element to its meaning: for example, you could not say You like to hit that tree just now if the car had already crashed. Certainly much more work is necessary before this hypothesis can be accepted; at present it is not even clear what kinds of data can be used as evidence.

In this paper I have tried to show that the syntax of the enclitic -xa-lyvii- can only be explained by reference to pragmatic considerations which have their correlates in many other languages, if, indeed, they are not universal. A number of details about the use of lyvii in this construction have not yet, however, been fully explained. For example, there is the problem of the failure of -xa-lyvii- to take pronoun prefixes, in distinction to every other enclitic form in the language. It may be that this difference implies a greater formal difference than that which I have been

assuming in this paper. There is also the problem of the sentences without any overt desiderative marker which are still translated with "want". Is it that there is a suffix which occasionally appears as ∅ (alternating with -w), or is it that the absence of any suffix indicating that the action has been performed is interpreted as meaning that the action is yet to be performed, which in turn is used occasionally to mean that the subject wants to perform the action?

At a deeper level there are a number of questions which this brief treatment has ignored completely. For example, what is the relationship between lyvii and the "optative" suffix -ly('e), as in

(32) xuumar '-yuu-ly
child I-see-OPT
'I'd like to have a child.'

and, further, what do these have to do with the uses of ly (and cognate morphemes) in desiderative constructions in other Yuman languages, e.g. some dialects of Diegueño and Cocopa? And lastly, will the answers to these questions bear any relation to the reason why, in the history of English, the verb meaning "to be like" also came to mean "to enjoy"? I hope that some of the pragmatic considerations presented in this paper will suggest new ways of looking at these and other problems in this area, and perhaps lead to a better understanding of the semantic structures of Yuman languages.

Notes

1. Both Christine Emerson and Cynthia Wilson (of California State University, San Diego) deserve credit for a large part of this paper. Their ideas and analyses, as well as their judgments on Kwtsaan sentences, appear here in places too numerous and varied to list specifically. I should like to thank Margaret Langdon for her help with several drafts of this paper, and Don Crook for his ideas and support during the writing of it.

The orthography used here for Kwtsaan is the practical orthography used in the field methods class at UCSD in 1975, so that, for example, sh = š, and so on. The other languages cited are written in the orthography used by the source. Most of the abbreviations used in the morpheme glosses are self-explanatory, except for EV, which I am using as a cover term for anything that can go at the end of a main verb (and thus is equivalent to TNS).

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2. This distinction is reminiscent of the one found by Langacker (1975) for not Adjective versus un-Adjective; the first he calls "simple negation", the second "reversal". He proposes that the difference in meaning between the two lies in the difference between the scope relationships in their semantic representations; "simple negation" is represented as NOT(BE(ADJ)), while "reversal" is represented as BE(NOT(ADJ)). It should be possible to set up the same kind of distinction for not like and dislike: NOT(DO(LIKE))

as opposed to DO(NOT(LIKE)) and possibly for the Kwtsaan construction as well: -x-ly'em- would be equivalent to NOT(DO(WANT)), while -xa-lyvii-ly'em- would correspond to DO(NOT(WANT)), except that I am not sure how these scope relationships interact with the performative level.

3. This constraint is similar to one in Japanese, where it is not possible to say hoshii da "want" of third persons; instead, hoshii garu, which is usually translated as "shows signs of wanting", is used.

4. The -w which is suffixed to ts-maa- "eat" is problematic in several ways. It clearly has a kind of desiderative meaning whenever it occurs, but its distribution seems to be restricted to verbs which end in a vowel. Why it does not occur on consonant-final verbs is a problem which remains to be solved.

5. I wish to thank Patrick Murray for suggesting this line of enquiry.

INTERNAL AND EXTERNAL HEADS IN KWTSAAN RELATIVE CLAUSES

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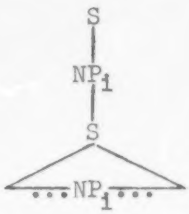
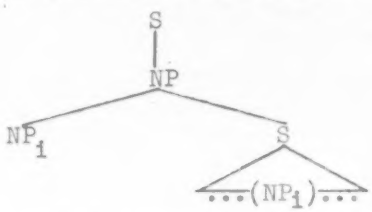
Restrictive relative clauses in Kwtsaan (Yuma) exhibit many of the formal characteristics of those found in other Yuman languages. They are best described as headless; that is, where the underlying structure is of the form



in which the semantic head is found within the relative clause (RC) itself. This structure has already been argued for Diegueño by Larry Gorbet (1974) and for Mojave by Pam Munro (1974).

In this paper, the underlyingly headless structure shown above will be assumed for Kwtsaan as well, and data will be presented which indicates that Kwtsaan speakers are now producing sentences containing RC's with external heads (like most RC's of English) in addition to the standard Yuman internal head RC's.[1] The external head RC can be derived from one with an internal head by a rule which raises the head into the matrix sentence to produce a structure of the form shown below:



In the above structure, a second instance of NP$_i$ has been left in the subordinate clause since it could be thought that with the raising of the head, a pronominal copy is left in the subordinate verb, which surfaces in translation as "the one who", "it", etc. This NP has been placed in parentheses, however, because it does not surface as an overt pronoun; instead, it is always implied by the nominalized form of the subordinate verb, even in the headless structure where it is not needed to aid the translation.

[1]I would like to thank my two Kwtsaan consultants, Cynthia Wilson and Christine Emerson, for their willing cooperation in producing, checking and discussing the Kwtsaan sentences contained in this paper. My thanks also to Sue Norwood for helping me check the data used here.

The argument that Kwtsaan RC's now occasionally have external heads is based on the occurrence of demonstrative and case suffixes with NP's which were originally contained within the RC in its underlyingly headless form. The presence of these suffixes is crucial to the argument being made here since it is normally the case that NP's within the headless RC bear no demonstrative or case suffixes. Those suffixes are born only by the last element of an NP, which in the case of a RC is the subordinate verb. The RC is thus marked according to its function as a NP constituent of the entire sentence. If the RC is the subject of the matrix sentence, the relativized verb is marked with the demonstrative -ny or -nyny plus the subject marker -ts (pronounced altogether as [ints] and [nyints], respectively). When the RC is an object NP, it is marked with the demonstrative -ny (pronounced [nyə]) and the zero object marker.

In addition to bearing suffixes marking the function of the RC in the sentence, the subordinate verb also exhibits one of two types of relativizer, depending on the function of the head NP within the RC. Thus, if the head is the subject of the clause, the nominalizer kw- is prefixed to the verb. When, however, the head is an oblique argument of the RC, then the verb is usually relativized by undergoing a kind of ablaut of one of the root vowels or by prefixing a long uu- to the root. The result of this ablaut is almost always a long root initial uu-. This form of the relativizer is therefore not marked by a unique morpheme, but for simplicity's sake it will be referred to in this paper as the uu- relativizer.

Altogether there are four possible combinations of type of relativizer and case marker (with associated demonstratives), the choice normally depending on the role of the head in the RC and the role of the latter in the matrix sentence. The possible combinations are summarized in the table below and exemplified in the corresponding sentences (1) through (4).[2]

Functional description	Syntactic description
(1)Topic[3] of S_0 is subj of S_1 and of S_0	$[X-[[\text{Subj-Obj-kw+Vb root}]_{S_1}\text{+DEM+ts}]_{NP}\text{-Y-Vb}]_{S_0}$
(2)Topic of S_0 is subj of S_1 and obj of S_0	$[X-[[\text{Subj-Obj-kw+Vb root}]_{S_1}\text{+DEM+}\emptyset]_{NP}\text{-Y-Vb}]_{S_0}$
(3)Topic of S_0 is obj of S_1 and subj of S_0	$[X-[[\text{Subj-Obj-uu+Vb root}]_{S_1}\text{+DEM+ts}]_{NP}\text{-Y-Vb}]_{S_0}$
(4)Topic of S_0 is obj of S_1 and of S_0	$[X-[[\text{Subj-Obj-uu+Vb root}]_{S_1}\text{+DEM+}\emptyset]_{NP}\text{-Y-Vb}]_{S_0}$

[2] In the example sentences, the RC's are underlined. The practical orthography developed for Kwtsaan is being used; all cases of [ə] are therefore transcribed as a; sh represents the retroflex sibilant; ts represents the affricate [c]; ny stands for [ñ]; tt is an alveolar [t]; d is the interdental [ð]; long vowels are written double; and ee represents the sound [æ].

[3] What is being referred to here as the "topic" is the head of the RC in its function both as the subject or object of the RC and, together with the rest of the RC, as the subject or object constituent of the matrix.

(1)a. tortii siny'ak kwtapomints vataytensh
(tortilla woman REL-burn-DEM-SUBJ big-very-TNS)
'the tortilla that burned the woman is big'

b. iipaa va vadeny kwtsownyints iny'ayts
(man house this REL-build-DEM-SUBJ father-SUBJ)
'the man who built this house is my father'

(2)a. intseny ekoorten kwnyavaynya anyoortsk 'aymtstum
(sister far-very REL-live-DEM-ØOBJ write-PL-TNS give-PL-TNS)
'we write (literally 'write and give') to my sister who lives far away'

b. iipaa iido kwxavshuunya 'ashuupowtum
(man eyes REL-blue-DEM-ØOBJ know-TNS)
'I know the man who has blue eyes' (i.e. 'the blue-eyed man')

(3)a. itskwirow uuwitsints xamalysh
(car REL-own-DEM-SUBJ white-TNS)
'the car I own is white'

b. Johnts vii uutapints avanya tavsh
(John-ts[4] rock REL-throw-DEM-SUBJ house-DEM-ØOBJ hit-TNS)
'the rock John threw hit the house'

(4)a. atsshaak awiim uunyoornya xattints tsamnyaash
(bone with REL-write-DEM-ØOBJ dog-DEM-SUBJ chew-TNS)
'the dog chewed the bone I wrote on the ground with'

b. Johnts piilot uukwitnya Maryts adawsh
(John-ts[4] ball REL-hit-DEM-ØOBJ Mary-SUBJ catch-TNS)
'Mary caught the ball John hit'

The above sentences are examples of the standard usage of the relativizers, demonstratives and case markers. That is, they exemplify the statistically preferred morpheme combinations for any particular syntactic structure, although other sequences were often offered, particularly on the first attempt at elicitation or when the standard form would have resulted in some type of ambiguity (although alternative forms generally did not form a consistent pattern). When the consultants were questioned closely about possible forms of the relativized verb, however, non-standard combinations were seldom preferred over the standard ones, though it was often the case as well that the standard form was considered no more natural or acceptable than some other form. The range of and reasons for acceptable non-standard forms is an interesting topic, but it does not appear to bear on the argument of this paper, and the sentences used here all conform to the standard.

The degree of acceptability of sentences containing RC's varied not only according to the choice of affixes on the subordinate verb, but also according to the order of NP's in the RC and to the presence or absence of demonstrative and case suffixes on those NP's. As Pam Munro (1974) mentioned, scrambling of NP's in Mojave RC's can occur, particularly in order to front the semantic head of an oblique RC.

[4]The subject marker -ts appears consistently and otherwise inexplicably on proper nouns when they are the subject of the RC, no matter whether they are in topic position or not. They also, of course, do not take demonstrative suffixes. Their behavior is thus quite different from that of common nouns and will not be dealt with in later discussion concerning the behavior of NP's in RC's.

The same is true of Kwtsaan. When the oblique RC contains two NP's, both of which could be construed (without semantic anomaly) as the head of the RC, this fronting of the head NP is obligatory. Failure to front the head NP would block the intended reading. The sentences below illustrate that the head of both subject and oblique RC's is interpreted as being the first NP in the RC.

(5) qwaak xatalwe uudawnya 'asoosh
(deer coyote REL-catch-DEM-ØOBJ eat-TNS)
'I ate the deer that the coyote caught'

(6) xatalwe qwaak uudawnya 'asoosh
(coyote deer REL-catch-DEM-ØOBJ eat-TNS)
'I ate the coyote that the deer caught'

(7) siny'ak tortii kwtapomints uuvaak
(woman tortilla REL-burn-DEM-SUBJ be=here-TNS)
'the woman who burns the tortillas is here'

(8) tortii siny'ak kwtapomints uuvaak
(tortilla woman REL-burn-DEM-SUBJ be=here-TNS)
'the tortilla that burned the woman is here'

The fronted NP is now at the left margin of the RC, at the opposite end from the verb. As mentioned earlier, NP's within the RC may not normally bear demonstrative and case suffixes,[5] with the exception of proper nouns (see note 4). When the consultants did produce RC's in which one of the nouns was marked with suffixes, it was invariably the head noun; marking any other was impossible. Sentence (9) below was acceptable despite the addition of suffixes on the head NP siny'ak, while sentence (10) is a case where the addition of suffixes to the head noun mashxay made the sentence entirely unacceptable.

(9) siny'aknya itskwrow kwtsaveshnya 'ashuupowtum
(woman-DEM-ØOBJ car REL-drive-DEM-ØOBJ know-TNS)
'I know the woman who is driving the car'

(10)a. mashxay } Florida kwteempints anyoork nyiinyaytum
b.*mashxayints }
(girl(*-DEM-SUBJ) Florida REL-move-DEM-SUBJ write-TNS to=us-
-give-TNS) 'the girl who moved to Florida writes (literally
'writes and gives') to us'

The apparent inconsistancy in acceptability may be due to the fact that the head is on the edge but not obviously separated from the rest of the clause. The acceptability of (9) indicates that siny'aknya has been raised into the main clause, although its linear position in the sentence has not changed. This explanation gains support from the fact that (10b) is only ungrammatical when the constituents of the RC are contiguous; as (11) shows, the sentence is acceptable when material from the main clause intervenes between the head and the rest of the RC.

(11)a. mashxayints } anyoork nyiinyaytum Florida kwteempints.
b.*mashxay }
'the girl who moved to Florida writes to us'

[5]It is assumed that the demonstrative on an object noun always implies the presence of the null case marker as well, based on the statistical fact that demonstratives on subject nouns never appear without the nominative case marker -ts.

Another example of this type of sentence is the following:

(12)a. Maryts {piilotnya} adawsh John uukwitnya
b. {?piilot}
(Mary-SUBJ ball-DEM-ØOBJ catch-TNS John REL-hit-DEM-ØOBJ)
'Mary caught the ball John hit'

Interestingly, once the head is separated from the rest of the RC, as in the above two sentences, it becomes a matter of fine distinction as to whether the head must be marked as belonging to the main clause or whether it may remain unmarked.

In order to derive these sentences, a rule of raising is required, followed by a rule which extraposes what remains of the RC. In (12b) it is hard to say whether piilot is marked as a matrix object or not since the object marker is zero. It seems highly unlikely, however, that piilot is a main clause constituent because it has no demonstrative suffix, which is odd since the RC modifies a very specific noun and makes it even more specific. Thus, it would seem that piilot still needs to be considered as the internal head of the RC despite its distance from the rest of the clause. If this is so, and if this sentence indeed needs to be generated, then it must be derived by a rule which selectively extraposes all of the RC except the head. The extraposition rule which produces sentences like (11) and (12) may, as Larry Gorbet suggested for some Diegueño sentences (somewhat different from these), best be termed 'right dislocation' since a more exact gloss for (11a) and (12a) would be 'the girl write to us, the one who moved to Florida' and 'Mary caught the ball, the one John hit,' respectively.

Sentences like (9) contain RC's looking most like the kind of external head RC found in English. They are clearly acquiring a substantial degree of acceptability and represent an intermediate step in the derivation of sentences like (11a) and (12a). The latter sentences clearly show how the modifying RC can move as a unit independent of the head after the head has been raised into the main clause. The data, if not overwhelming, at least suggests that Kwtsaan is beginning to develop RC's with external heads and to use rules which move complex subordinate material out of the way of main clauses, thereby making the heads quite independent of their modifying clauses.

HAVASUPAI COMPARATIVES

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Speakers of Havasupai may make use of several devices to indicate a comparative degree, i.e., that one thing has more of a certain quality or quantity than another. These devices are phonological, morphophonemic, lexical and syntactic, singly or in combination. Although strictly speaking a comparative statement should relate two things, the present discussion will include one-place predicates signifying excess or augmentation as well.

One common device for indicating augmentation, mentioned here only for completeness, is vowel overlength: /kur:r rav/ lo-o-ng ago. Perhaps the most usual way of indicating excess or augmentation is by employing the lexeme /rav/.

1. ña-mahñó-ñ-č v-táy rav́-k-yu
   1-shoe-det-nom emph-big aug-mod-be
   My shoes are too big.

2. ña-mahñó-ñ-č qáč rav́-k-yu
   1-shoe-det-nom small aug-mod-be
   My shoes are too small.

/rav/ is a weakly augmentative verb stem. Its semantic content is purely one of augmentation, while the quality itself is carried by the functional adjectives. The syntactic relation of the two is reversed in that it is the semantically less specified form that is the head of the verb phrase. In 1. and 2. the modifiers /tay/ and /qač/ are the /ay/ forms of the /e/~/ay/ vowel alternation set. In /qač/ the /ay/ occurs before /č/ resulting in deletion of /y/. The /e/~/ay/ (along with /i/~/uy/) alternation signifies variously the contrasts singular vs. plural, individual vs. class, specific vs. general, and in the present context, positive vs. comparative degree. The overt marking of comparative degree is supported by the augmentative /rav/. Notice sentences 18. and 19. where the only difference between equality and inequality is the occurrence of /te/ vs. /tay/. The indication of comparative degree, then, does not only rest in the choice of verb, but is distributed between the augmentative verb and the appropriate form of the attributive adjective.

3. pá-ha-č v'av'áv í-m rav́-k-yu
   man-dem-nom shiver say-mod aug-mod-be
   The man is shivering very hard.

4. vi-ú́ rav́-k-yu v'av'áv-k-a
   emph-emph aug-mod-be shiver-mod-asp
   He is shivering very hard.

In 3. the relations among the components of the predicate are brought out more clearly. The verb which bears the main semantic load is /v'av'av/ to shiver which is an inherently reduplicated form as is its apparent synonym /θirθir/. It carries no inflection. /i-m/ is an intensive construction employing /i/ to say, which is conventionally employed in this sense; /-m/ a subordinating affix is attached to it. Finally comes /rav/ with the closing sequence. The syntactic pattern, although rather complex, is not unique to comparative constructions. /v'av'av/, as are /tay/ and /qač/ in 1. and 2., is a syntactic complement of a higher verb and as such carries no final inflection (compare má kʷál-a I want to eat). The main verb phrase displays the same pattern of subordinating one verb to another to indicate duration or intensity as is usually found in constructions employing auxiliaries (wí-m wí-č-e, he always does that) or iteration of a verb (tiyé-m yé-k-i, he always lies). Sentence 4. has two clauses. It may be rendered as, "He has an extreme condition with regard to shivering." The particle /u/ always bears a primary stress, is often long and indicates a strong augmentation or superlative degree.

Aside from simple augmentation there are construction types which are used in two-term comparisons. Of interest here are those expressing equality or similarity (e.g. same, like, as) and those expressing inequality (e.g. more, less).

5. katóh-v-k múlo-ñ v-lwí-k
   kick-part-mod mule-det emph-like-mod
   He kicks like a mule.

6. a. múlo-ñ ú-čel-k
      mule-det emph-resemble-mod

   b. múlo-ñ v-lwí ráv-k
      mule-det emph-like aug-mod
      He resembles a mule.

7. v-lwí-v θ-čár-k
   emph-like-part con-resemble-mod
   He resembles him.

8. kʷe-ka-yú-m v-lwí-k
   indef- pro-be-mod emph-like-mod
   They do things the same.

Equality or similarity between any two things being compared, whether nominal or verbal, is usually indicated by the verb /lwi/ which is often preceded by the prefix /v-/ which is interpreted here as an emphatic. Sentences 5. through 8. give some idea of the range of /lwi/. The verb /čal/ to resemble in its alternate forms /čar/ and /čel/ conveys a similar meaning and they co-occur in the same sentence.

As in all comparative constructions there is a great deal of redundancy, both lexical and structural. Sentence 7., for example, may be glossed. "Their likenesses resemble each other." The prefix /θ-/ in 7. is here regarded as a conditional meaning almost the same. /lwi/ may also be used in interrogative sentences to question a similarity as in 9.

9. hát-ñ̃ kʷeñ̃ v-lwí
dog-det indef-det emph-like
What is a dog like?

10. ñá-č ólo té-m ñ-hát-k, ǰáń wí·-ha v-lwí θ-čár
1-nom horse many part 3-own-mod, John own-det emph-like cond-resemble
I have as many horses as John does.

11. ñá-č kak ólo qéč-m té-m ka-wí·ha v-lwí t-úm-k.
1-nom neg horse little-part much-part pro-own-mod, John own-det emph-like neg-neg-mod
I don't have as many horses as John does.

Comparing the final verb of 10. and 11. it would appear that /čar/ in 10. serves principally as an emphatic, or affirmative, comparable to /rav/ or an auxiliary since the negative sequence /t-um/ immediately follows /vilwi/. This sort of redundancy is also conspicious in 11., which may be literally rendered, "The few many horses that I own don't equal John's holdings."

Finally, /čal/ may occur in one-term predicates to indicate feeling or supposition.

12. hamčáy-m i-čal-k-i
hunger-partitive say-resemble-mod-say
I feel hungry.

13. kʷe-kʷimáč-k kʸú-čal-k-yu
indef- rain-mod
It looks like its going to rain.

In 12. the verb /i/ is to be taken not in the sense of say, but in the sense of a personal feeling, orientation or emphasis. It may also be used in the sense of to desire or to want. In 13., the /kʸu/ is a form whose distribution and meaning largely parallel that of /yu/ to be, but which expresses doubt, uncertainty or withholding commitment in the affirmation of some state of affairs.

Last of all, there are comparative constructions in which one term is not equal to the other. These constructions express relations or more or less.

14. hatk^{w}íl-ñ-č v-ték, kθár-ñ t-k^{w}íl-k
wolf-det-nom emph-big, coyote-det mut-surpass-mod
The wolf is bigger than the coyote.

15. v-ólo-ñ-č viyám θk^{w}áy-k, kθár-ñ t-k^{w}íl-k
emph-horse-det-nom run fast-mod, coyote-det mut-surpass-mod
The horse runs faster than the coyote.

16. ñá-č a-mí-k, ǰan k^{w}íl-wi
1-nom 1-tall-mod, John surpass-do.
I am taller than John.

Basically the inequality is expressed by the juxtaposition of two clauses. The first clause is a predication of some attribute or action. This is followed by another clause where the same subject is stated to surpass another with whom the comparison is being made. That /k^{w}il/ to surpass is not a stative verb can be inferred from its co-occurence with the auxiliary /wi/ to do. The prefix /t-/ on /k^{w}il/ is optional. It is often used to express involvement of two parties in some action. The verb /k^{w}il/ may also be used in interrogative sentences.

17. ka-ñ k^{y}ú-č-č sé-k t-k^{w}íl-v-e
pro-det might-nom-nom fat-mod mut-surpass-part-affirm
Which one is fatter?

The /v-/ serves to direct attention to the subject as having or being characterized by the action of the verb. It has somewhat of a participial sense in that it has more of a sense of description than that of a finite active verb.

18. ñá-č ólo-č té-m ñ-hát-k, ǰán wí·-ha v-lwí θ·čár
I-nom horse-pl much-part 3-own-mod, John own-det emph-same-cond-resemble
I have as many horses as John does.

19. ñá-č ólo táy ñ-hát-k, ǰán v-lwí θ-čár
I-nom horse many 3-own-mod, John emph-same cond-resemble
I have more horses than John does.

20. ǰán-č pés té-m wí·, ña-wí·-v-a t-k^{w}íl
John-nom money much-part own 1-own-det-det mut-surpass
John has more money than I have.

Sentence 18, and 19. are offered here to call attention to alternative forms of expression of comparatives. As was mentioned with regard to 1. and 2., although the augmentative /rav/ may indicate a comparative degree, the /ay/ forms of those morphemes in the /e/~/ay alternation class may also express it. The only difference between 18. and 19., aside from the nominal expression /wi·-ha/ possessed things, is that 18. has /te/ with a partitive affix /-m/ (also an apparent paucal plural /-č/ suffixed to /ólo/ horse) while 19. has /tay/ and this difference marks the difference between as many and more without the use of /kʷil/ to surpass. In 20., by contrast, /te/ occurs with /kʷil/ to mark inequality.

This brief discussion illustrates some of the more frequent methods of expressing degrees of comparison, and that comparatives and augmentatives employ the same devices. Finally, it illustrates the range of alternatives in choice among lexical items and construction types.

YAVPE IRREALIS CONSTRUCTIONS

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0.1 In Verde Valley and Prescott Yavpe, two dialects of northeastern Yavapai, there are a number of ways in which a speaker can indicate his attitude toward the information contained in a statement. Several of these devices fall under the rubric modality. Others do not, although, like modals, they are instances of a more general grammatical category exemplified by the irrealis construction.

By "irrealis" I mean something like "subjunctive," that a state is unrealized or is uncertain; this means that what is being talked about is counter to fact, or that it has not yet happened, or that it did not happen, or that it never will happen, or that speaker is not certain it happened or will happen. In many languages "irrealis" also includes verbs of wishing, dreaming, wanting, thinking, believing, and guessing, in addition to verbs or auxiliaries concerned with judgements of certainty or possibility.

The present study is concerned with the syntax and semantics of Yavpe irrealis sentences—or rather, with the syntax and semantics of certain kinds of irrealis sentences in this dialect group. Since the irrealis construction is so widely used in Upland Yuman, any attempt to illustrate its full function in the space allotted would be futile. Therefore claims for comprehensiveness are not advanced and are in fact specifically eschewed. Still, the exercise is not without value or importance for the study of Northern Yuman, nor is it insignificant for Yuman studies in general.

In researching and writing this paper, I have profited greatly from conversations with Alan Shaterian, especially on questions of transcription. Several of the Yavpe examples I educed are from material he recorded in Prescott, summer 1975. In these cases the mnemonic (AS) follows the English gloss. I would like to thank Professor Shaterian for his kind assistance and advice. I would also like to acknowledge helpful suggestions from the participants in the Yuman workshop, with special thanks to Leanne Hinton, James Redden, and Margaret Langdon for their encouragement.

1.0 Irrealis Markers

In my doctoral dissertation (Kendall, 1972) and in subsequent publications, I identify the verbal affix /-ha/ as a future tense marker, distinguishing it from the future auxiliary /(o)no:/. The auxiliary, I claimed, specified "immediate future" while the simple suffix marked all other instances of futurity. In retrospect this analysis is imprecise and misleading for the following reasons:

(1) not all occurrences of /-ha/ are clear examples of "future time" as the following example indicates:

(a) ?ña-c ?-vqi-k ?-yu:-v-a hma:ñ qya:t-a ?-wiy-ha

1-sbj 1-woman-ego 1-be-af-irr children many-tns 1-have-irr

"If I had been a woman, I would have had many children."

(2) Both "immediate" and "non-immediate" future morphemes may—and frequently do—occur in the same verb phrase, e.g.

(b) ?-sma:-k ?-no:-ha

1-sleep-ego 1-fut-irr

"I'm about to go to sleep."

(3) The "non-immediate future" construction is in partial complementary distribution with at least two phonologically similar segments, /-h/ and /-a/, both of which appear in non-factive, counterfactual and negative factive sentences.

In spite of these facts all Yavpe consultants claim on one occasion that /-ha/ means "future," whereas in general not one of them can supply a consistent meaning for /-h/ or /-a/. This suggests that /-ha/, which obviously includes irrealis /-h/ and/or irrealis /-a/, is developing into a tense marker. That Yavpe speakers classify the morpheme in this fashion, even in sentences such as (a) above, only adds to the seductiveness of the /-ha/ equals "future" analysis.

It is probably more accurate to say that /-ha/ is not yet a genuine tense indication, despite its ethno-linguisitc categorization. It is still part of the modal system and, as such, must be considered in relationship to the other irrealis morphemes.

It is a simple task to discriminate between /-ha/, which is perceived [-əha] or [-aha], and these other two segments. However the distinction between /-h/ and /-a/ is slight, and not all speakers make it with equal clarity on every occasion. In lento speech Yavapais pronounce /-h/ as [-ah], and pronounce /-a/ as [-a] or [-a:]. In allegro speech the former deduces to a slightly breathy [-a^{h}], very similar to, but nevertheless distinct from, the other segment (Shaterian, personal communication).

It appears that /-h/ (phonetic [-a^{h}]) occurs on a verb whenever that verb precedes one of a set of modal auxiliaries or particles, or when it precedes the negation auxiliary /?om/ (/?um/ in Prescott Yavpe).

Irrealis /-ha/ appears on verbs that are semantically "future," including those which are "future" relative to some point in the past (see, for example, sentence (a) above). "Future" in this general sense also covers the hortatory constructions exemplified by

?-pe:m-ha "let's go!" and ?-ma-c-ha "let's eat!"

1-go-irr 1-eat-pl-irr

The affix /-a/ is at the core of the analytic problem. It appears obligatorily in several non-factive or counterfactual constructions, most notably /?ika/ in order to and /yu:va/, /wi:va/ and /?i:va/ counterfactual. There is some question whether these are formal irrealis categories, though certainly they fit the semantic criteria for inclusion in an irrealis set.

This final segment, /-a/, is frequently the ending for modals and negative verbs themselves. Still, it appears in other grammatical patterns that cannot be considered examples of a common semantic or syntactic pattern. If this formative constitutes an irrealis morpheme, it is homophonous with the noun absolutive suffix /-a/ and with a segment that seems vaguely involved with "tense" or "emphasis" as well. The reader should keep in mind that any analysis of /-a/ is tentative; therefore, glosses for this segment must be evaluated with considerable wariness. If this proviso is kept in mind, confusion about what /-a/ "really" means, can be held to a minimum.

2.0 Modality

In both Prescott and Verde Valley Yavapai there is evidence that the modal system is undergoing re-analysis, proliferating categories not found in the other Northern Yuman dialects. Redden (1966) lists six modal suffixes for Hualapai, all of which Yavapai shares or has analogues for. In addition to these, northeastern Yavapai speakers have innovated, or are innovating, another three modals—four, if one counts the specialized meaning, "dubitative," created for the pan-Northern Yuman suffix /-mo:/.

I will discuss the innovated items after a brief review of the irrealis elements Upland Yuman dialects have in common.

2.1 /ma:t/ and /-o-/

Redden notes that Hualapai has a verbal affix /almat/ which indicates probable truth of a statement or probable realization of a situation described. Translations provided for this morpheme are "think so, believe probable, should/ought to by now, conclude, guess and estimate." The Yavpe equivalent, /ma:t/, can just as well be translated "looks like," "seems" and "appears."

The judgements expressed in /ma:t/ sentences are based on intuition, hunch, past experience, probability or circumstantial evidence; hence they contrast formally and semantically with /-o-/ sentences expressing judgements with an evidentiary basis in sensory stimuli. More simply, modal /ma:t/ sentences are based on deduction whereas evidential /-o-/ sentences are based on induction.

Thus while both modal and evidential assertions freely translate into English with the glosses supplied above, they do not imply identical conditions in the universes they describe. In each of the following pairs

the first sentence represents an opinion based on guess, hunch, intuition, or probability, and the second represents an opinion based on sight, smell, or sound.

(1a) hipa:-t-m k-hʷi:w-c va-k ʔa:mc-h ma:t-kñ

night-tm-allo rel-smell-sbj here-at go-irr seem-cmp

(1b) hipa:-t-m k-hʷi:w-c va-k ʔa:mc-k yu-o-m-a

night-tm-allo rel-smell-sbj here-at go-irr be-evd-allo-tns

"There must have been a skunk here last night." "A skunk must have been here last night." "It looks like a skunk was here last night."

(2a) ʔkʷivo-h ma:t-kñ

rain-irr seem-inc

(2b) ʔkʷivo-k yu-o-kñ

rain-ego be-evd-cmp

"It probably rained." "It must have rained." "It seems like it rained."

(3a) ñmi-v-c ʔwe:-ñu neh-h ma:t-m-a

cat-dem-sbj mice-dem kill-irr seem-allo-tns

(3b) ñmi-v-c ʔwe:-ñu neh-k wi:-o-m

cat-dem-sbj mice-dem kill-ego do-evd-allo

"It looks like the cat killed the mice." "The cat must have killed the mice."

Sentence (1a) is appropriate to situations where something indirectly suggests the presence of a skunk, e.g. one's garbage cans have been disturbed or one's chicken house raided. One consultant claimed he could say this when he detected a skunky odor lingering about, but another thought (1b) was better in that case. Both felt that (1b) was the best way to express an opinion on the probable presence of a skunk when the evidence was more direct, e.g. skunk tracks, skunk droppings, skunk fur, etc.

Similarly (2b) would be uttered when there is tangible evidence of rain, e.g. puddles on the ground, rain pocks in the dust. On the other hand (2a) might be offered if one's joints ached, or if one were guessing that it rained because it was the rainy season, and so forth.

Examples (3a) and (3b) contrast with two other possibilities, each of the four indicating something significant about the evidence upon which it is based. Sentence (3a) describes a situation where there is evidence—possibly negative evidence—that the mice are dead; for example the mice

are no longer around. Sentence (3b) suggests not only that the mice are dead, but that the cat is directly implicated—it has blood on its whiskers, it is playing with mice corpses, there are bloody cat tracks near the remains of the mice. Sentence (3c) below is more speculative. There may be evidence that the mice are dead but there is little to indicate what killed them. It is sheer allegation that the cat is implicated. The last sentence, which is actually three sentences, asserts the fact rather than opinion that the cat is responsible for the mice's death. It is appropriate to use any of these versions when one actually sees the cat dispatch the rodents in question.

(3c) ñmi-v-c ʔwe:-ñu neh-mo:

cat-dem-sbj mice-dem kill-dubi

"Maybe the cat killed the mice."

(3d) ñmi-v-c ʔwe:-ñu neh-[-kñ, -km, -m(a)]

cat-dem-sbj mice-dem kill-[cmp, inc, allo (tns)]

"The cat killed the mice."

These data demonstrate that at least two criteria are relevant to a decision among these grammatical choices: (1) degree of certainty, (2) quality or source of evidence underlying the certainty. Sentences with /-mo:/ are weak with respect to either criterion. Sentences with /ma:t/ are stronger with respect to the first standard but still relatively weak with respect to the second. The /-o-/ construction indicates considerable strength on either scale relative to /-mo:/ or /ma:t/, while /-kñ/, /-km/ and /-m(a)/ signal absolute conviction based on evidence from one's own senses.

2.2 /yi:-θ/ and /hi:-θ/

The auxiliary /yi:-θ/ is a counterfactual marker signalling that the conditions necessary for some event or phenomenon were in abeyance, that some goal failed to be realized, that some state did not materialize or that it materialized contrary to expectation. It is semantically negative, and shares at least one property with the negation auxiliary /ʔom/, viz. it requires irrealis markings on the preceding verb.

/yi:-θ/ is quite obviously not monomorphemic, since /yi:/ occurs as the main verb to think, believe, suppose, and is involved in stems built from this root, e.g. /yi:te:/ but, and /kʷal...yi/ to want, to wish for, to long for. The interdental fricative /-θ-/ apparently has morphemic status in its own right, as it shows up in /hi:-θ/ counterfactual and /-k-θ-o:/ conditional, constructions for which plausible morpheme-by-morpheme glosses are available.

Still /yi:-θ/ and /hi:-θ/ have a kind of functional integrity as counterfactual modals. They contrast in syntactic distribution and in semantic impact with other morphemes built on the same stems. The following sentences illustrate this with /yi:/ stems only: (4)-(6) are examples

of counterfactual modals, (7)-(9) of probability modals, (10)-(12) of asymmetrical conjunctions, and (13) of a delayed or postponed goal.

(4) ya-k m-yu-k m-yu:-v-a tsyo:m-a m-ʔu:-ñ-h

here-at 2-be-ego 2-be-af-irr tug-of-war-abs 2-see-perf-irr

m-yi:-θ-a

2-mod-mod-tns

"If you had been here you would have seen the tug-of-war."

(5) ma:-c hma:ñ m-wiy-ñu ʔpayk pa:-m-spo:-o m-wi:-v-a,

2-sbj children 2-have-dem Yavpe obj-2-know-cause 2-do-af-irr

ʔha:n-h yi:-θ-a

good-irr mod-mod-tns

"If you had taught your children Yavapai, it would have been good."

(6) ʔpa:hmi:-c ʔ-yu:-v-a ke hma:ñ ʔ-wiy-h ʔ-ʔom-h

man-sbj 1-be-af-irr neg children 1-have-irr 1-nit-irr

ʔ-yi:-θ-a

1-mod-mod-tns

"If I had been a man, I would not have had children."

(7) hayko:-v-c ʔña v-li:-ñ-k, pur pur-v-c-m-a,

white-dem-sbj 1 state-like-conj-ego hat hat-reflx-pl-allo-tns

mlqe:-c-c pi:l-h yi-m-e:

neck-pl-sbj burn-irr mod-allo-exist

"White people like me must wear hats or they'll probably get their necks sunburned."

(8) ñye:kkθo: ʔwi: puk-a ʔ-ya:m-c-k ʔ-no:-ha ʔha:n-a

tomorrow rock foot-abs 1-go-pl-ego 1-fut-irr good-tns

qyat-h ma+ʔyi:-km

much-irr 1-think-cmp

"Let's go to the Verde Valley tomorrow. It might be fun." "It might be good." "I think it would be fun."

(9) John-c vo:k-h ʔom-a ma...yi:-km

John-sbj return-irr not-tns think-inc

"John probably won't come back." It isn't likely that John will return." (?) "John thinks he won't return."

(10) ññu-c-c hañ+k+sav-c ke va:m hʷa:v-h ʔom-c-m

those-pl-sbj scorpion-sbj neg here go+multi-irr not-pl-allo

yi:-c-h yi:te: ñu-c-c ca:m-c-km

think-pl-irr but that-pl-sbj miss-pl-cmp

"They think there aren't scorpions around here, but they're wrong."

(11) ñ-θa-c-c ke pa:-ʔ-m-kmwa:c-c-h m-ʔom-i ʔi-c-h

dem-there-pl-sbj neg obj-1-2-kill-pl-irr 2-not-imp say-pl-irr

yi:te: pa:-ʔ-wi:-c-kñ

but obj-1-do-pl-cmp

"They begged us not to kill them but we did it anyway."

(12) ʔkʷe:+cha:n+i wi:y-a ʔwa: cha:n-ñu kʷal+ʔ-yi-h yi:te:

paint brush have-abs house paint-dem 1-think-irr but

ʔ-sme:-km

1-misplace-cmp

"I wanted to use his paint brush but I misplaced it."

(13) kula-c ʔiñk θala kʷe:+cvya:m-ñu ʔ-yo:v-h yi:-t-yu-m

Kula-sbj say Thala car-dem 1-make-irr mod-temp-be-allo

"Kula promised Thala to fix the car sometime."

Related to /yi:-θ/ is another counter-expectancy or counterfactual construction /hi:-θ/. It occurs in the same syntactic patterns as /yi:-θ/, frequently alternating with it in subsequent repetitions of the same elicited sentence.

As far as I can tell /yi:-θ/ is concerned with frustrated intentions and desires, whereas /hi:-θ/ is more indicative of frustrated opportunities and capacities, a difference which can be illustrated with the following contrastive pair from English:

(a) I would be an oceanographer but I'm afraid of fish (yi:-θ)
(b) I could be an oceanographer but I'm afraid of fish (hi:-θ)

The first sentence above presupposes that its speaker wishes to be involved in ocean study and asserts that this desire is thwarted. The second sentence makes no such presupposition although it does assert that something is thwarted: namely, an ability or capacity to study the ocean.

That the Yavapai examples below are entirely analogous is not surprising, given that /yi:-θ/ is built on a cognitive-emotional root /yi:/ and /hi:-θ/ is built (probably) on the irrealis marker /-h/. It should be noted that free translations for these sentences were supplied by my consultants and not by me.

(13a) Rosie-c myal yo:v-h hi:-θ-m mwa:r-a pe:m-i

Rosie-sbj bread make-irr mod-mod-allo flour-tns gone-tns

"Rosie could make bread if she had flour." "Rosie could make bread but the flour is gone." "Rosie can't make bread because the flour is gone."

(13b) Rosie-c myal yo:v-h yi:-θ-m mwa:r-a pe:m-i

Rosie-sbj bread make-irr mod-mod-allo flour-abs gone-tns

"Rosie would make bread if the flour weren't gone." "Rosie would make bread but there's no flour."

(14a) ?ihmi:y-a ?-ca:m-h ?-hi:-θ-m, vka-c pa:-ñ-wa:m-h

acorn-abs 1-pick-irr 1-mod-mod-allo who-sbj obj-1-take along-irr

?om-i

not-tns

"I could pick acorns but there's no one to drive us (to the gathering place)." "I could pick acorns if someone would drive."

(14b) ?ihmi:y-a ?-ca:m-h ?-yi:-θ-m, vka-c pa:-ñ-wa:m-h

acorn-abs 1-pick-irr 1-mod-mod-allo who-sbj obj-1-take along-irr

?om-i

not-tns

"I would pick acorns but not one will drive us to (the gathering place)."

(15a) m-wivi m-tskʷi:l-h m-hi:-θ-m avo:n pe:m-i

2-clothes 2-wash-irr 2-mod-mod-allo soap gone-tns

"You could wash your clothes if you had soap." "You could wash your clothes if the soap weren't gone/but there's no soap."

(15b) m-wivi m-tskʷi:l-h m-yi:-θ-m avo:n pe:m-i

2-clothes 2-wash-irr 2-mod-mod-allo soap gone-tns

"You would wash your clothes if the soap weren't gone."

2.3 /lwi/ (Prescott), /li:/ (Verde Valley)

The modal auxiliary /li:/ corresponds roughly to English should (have), although some sentences elicited with English should (have) constructions translate into Yavpe with auxiliary /no/ (Verde Valley), /nu/ (Prescott) instead. (See the following section.) Both of these modals appear to be Yavapai innovations, as they are absent from Hualapai and Havasupai—and in fact are identified as foreignisms by speakers of these dialects.

The auxiliary /lwi/ or /li:/ derives from the main verb /lwi:/ to be correct, proper, true; to fit, match, be similar to. In Yavpe these meanings have coalesced, the result being a distinct lexical item with auxiliary verb status, and the Verde Valley form of the auxiliary demonstrates that this is so. In Prescott dialect the modal aux is still pronounced [lɘwi], i.e. it is entirely homophonous with the main verb; however in the Verde Valley the auxiliary has lost its labialized segment and occurs as [li:], which makes it distinct phonetically and semantically from the main verb. In other words, the Verde Valley people have pushed their reanalysis of /lwi:/ all the way to its conclusion, through homophony to neologism. Examples of this modal from both dialects are presented below.

(16) hyako kθye: m-ʔu:-h m-li:-a

white doctor 2-see-irr 2-mod-tns

"You should see a doctor."

(17) vke? ʔc-ʔ-ma:-h ʔ-a-ʔum-a ʔ-lwi-a ʔ-yu-ma

neg dum-1-eat-irr 1-Ø-not-tns 1-mod-tns 1-be-allo

"I shouldn't eat." (AS)

(18) ʔpa sa:y-c myal myul ma:-h ʔom-h li:-a yu-m

man fat+pl-sbj bread sugar eat-irr not-irr mod-tns be-allo

"Fat people shouldn't eat cakes."

(19) pa:-k-ta:y-ñu qʷaqta ma:-h hi:-ñu m-ckyat-o

man-rel-old-dem meat eat-irr mod-dem(?) 2-cut-benef

m-lwi-a m-yu-ma

2-mod-tns 2-be-allo

"You should cut up the meat for the old (man) if he is to eat it." (AS)

The tense of these sentences is apparently determined by the form of the auxiliary following /lwi/ or /li:/. If there is an "applicative-evidential" /-o-/ affix included in this construction, past time is indicated; if no auxiliary occurs, or if one appears without /-o-/, either generic or non-past time is signalled. In the draft of this paper presented to the Yuman workshop, sentence #1 was incorrectly translated. The correct form would be either (20) or (21) below:

(20) = (1) ?-ya:m-c-h ?-li:-a ?-yu-c-m-a

1-go-pl-irr 1-mod-tns 1-be-pl-allo-tns

"We should go."

(21) = (1) ?-ya:m-c-h ?-li:-a ?-yu-c-o-m-a

1-go-pl-irr 1-mod-tns 1-be-pl-appli-allo-tns

"We should have gone."

The semantics of applicative /-o-/ constitutes an area ripe for investigation.

2.4 /no/ (Verde Valley), /nu/ (Prescott)

The development of modal functions for a main verb, /lwi:/, was illustrated in the preceding section. It is paralleled by similar expansion of function for the auxiliary /ono:/, from /ono:/ future to /no/ must. The semantic transition from "future" to "necessitative" or "obligatative" is not at all unnatural, and in fact has taken place in English for certain restricted domains, as in military instructions, advice or commands to children, e.g.

"A newly arrived officer will present his card to the colonel's lady." "Enlisted men will escort ladies to the tea room." "You will not get your pinafore dirty." "You will not chew gum in church."

Notice that most of the Yavapai sentences included in this section have semantic force analogous to that of the preceding English examples. The sense of (23) is advice rather than command however, whereas (24) is an assertion of certainty. Again, both Prescott and Verde Valley materials are presented, the former contributed by Alan Shaterian.

(22) ke m-ckʷa:r-h m-?om-h m-no-m

neg 2-laugh-irr 2-not-irr 2-mod allo

"You mustn't laugh." "You will not laugh."

(23) ?pa sa:y-c myal myul ma-h ?om-h no-m-a

man fat-sbj bread sugar eat-irr not-irr mod-allo-tns

"Fat people mustn't eat sweets."

(24) qʷaθk?ol-c ñ-va-k yo:-h nu:-ma

apple-sbj dem-here-at exist-irr mod-allo

"There must be apples here." "There will be apples here." (AS)

(25) vke? m-kci:c-v-h m-a-?um-a m-nu:-ma

neg 2-steal-(?)-irr 2-Ø-not-tns 2-mod-allo

"You mustn't steal." "You will not steal." (AS)

Harold Sine, who produced both (18) in the preceding section and (23) in this, commented that the latter is "stronger," a judgement confirmed subsequently by Effie Starr. She also found sentence (22) more forceful than a simple negative imperative. "Don't laugh," which follows from the etymon of the auxiliary in question.

While there is ample comparative evidence that Yavapai is expanding its modal system relative to its sister dialects, there is little suggesting why this is the case. It may be a case of stimulus diffusion where modal categories from a contact language are incorporated into one's own speech (in which case English and Apache are logical source languages). On the other hand, it may be the natural drift of Upland Yuman. In any event, it is an important diagnostic trait for distinguishing among the dialects and an interesting example of language change as well.

3.0 Other Irrealis Constructions

So far, we have considered two kinds of irrealis structure although one, the weak hortatory, was mentioned only in passing. There are possibly five other syntactic and semantic topics germane to the present investigation, far too many to examine here; they are (a) future tense and conditional sentences, (b) counterfactual non-future conditionals, (c) negation, (d) purposive, (e) reportatives. Since I have discussed purposive sentences elsewhere (Kendall 1972, 1975) and since there is little data available to me on reportatives, I shall discuss in this paper only the first three topics, they being the most clear examples of irrealis syntax and semantics.

3.1 "Conditional" Sentences and Future Time Sentences

"Conditional" sentences, by which I mean utterences of the general form "if... then...," have quite distinctive morphology in Yavapai. Non-past conditionals normally include the sequence /-k-θ-o:/, same subject-modal-modal, on the "if clause" and the irrealis "future" morpheme /-ha/ on the "then clause." Past conditionals, considered in the following section, can similarly be characterized as unusual morphologically. Examples

of non-past conditionals are:

(26) ʔha:-ñu-l ñ-m-ya:m-k-θ-o:, ʔci: šaw-c m-cckʸo:-c-ha:

water-dem-into tmp-2-go-ss-mod-mod fish baby-sbj 2-nip-pl-irr

"If you go into the water, little fish will nip at you."

(27) vqi hma:ñ-c ñmi vhe syo:m-k-θ-o: ñmi-c ttmo:-ha:

woman child-sbj cat tail pull-ss-mod-mod cat-sbj scratch-irr

"If the girl pulls the cat tail, it will scratch her."

(28) kopca-c-e: ??i: c-kʸat-h ñ-a-ʔum-k-θ-o: hamsi:-c

Kopca-sbj-hesit wood caus-cut-irr when-3-not-ss-mod-mod Hamsi-sbj

way+ʔlay-ha

angry-irr

"If Kopca doesn't cut the wood, Hamsi will get angry." (AS)

(29) ke m-tʔol-k v-marmar-h ñ-m-ʔom-k-θ-o: ʔha:n-ha

neg 2-cook-ss stative-long-irr tmp-2-not-ss-mod-mod good-irr

"If you don't cook it too long, it will be good."

Notice that the "then" clauses are all in future tense and are marked accordingly with irrealis "future" /-ha/. It is possible to indicate futurity in simple sentences with this morpheme, just as it is possible to use the more complex "future" auxiliary /(o)no:/ (or /(u)nu:/, Prescott dialect). Even this auxiliary construction takes irrealis markers occasionally however.

(30) kavʔicm ʔwa ʔha:n-l ʔ-wa:-ha

someday house good-in 1-live-irr

"Someday I'll live in a nice house."

(31) ke ñva-k m-vo:k-h m-ʔom-h m-no:-m-a

neg here-at 2-return-irr 2-not-irr 2-fut-allo-tns

"You'll never come back."

(32) kʷe: skʷiskʷi:y-ñu ñ-ʔe:-ha

dum stripe-dem 1/2-give-irr

"I'll give you that candy."

These are not the only possibilities. The complex future construction may also occur without irrealis marking on the preceding verb, in which case that verb will take referent switching /-k/ instead, e.g.

(34a) kʷivo:-k (o)no:-km

rain-ss fut-inc

"It's going to rain."

(34b) kʷivo:-h (o)no:-km

rain-irr fut-inc

"It's going to rain."

The existence of this variability is not surprising, given that the tense-aspect system is undergoing re-analysis, and given that a complex modal system is developing.

Apparently same subject /-k/ is replacing the older Northern Yuman /-h/ in this construction, a change that has been almost completely effected. Still the future auxiliary bears the mark of the older form in its initial breathy vocalic onset for third person [ʰono:], and the /-h/ plus auxiliary form still shows up once in awhile in sentences such as (31), (33), and (34b). If Yavapai were to survive another century, examples like these would be impossible anachronisms.

3.2 "Counterfactual-conditional" Sentences

The auxiliaries /wi/ and /yu/ participate in a number of different constructions, two of which fall within the scope of this paper: evidentials and counterfactual conditionals. The former were discussed earlier in section 2.1, and contrasted with the modal /ma:t/. The latter are important here. In counterfactual conditionals, some state of affairs or some event failed to materialize or was rendered impossible by a countervailing state or event, in consequence of which a dependent condition was thwarted. This dependent condition follows from, or rather fails to follow from, antecedent and necessary conditions enumerated in an if clause.

Sentences that are past conditional, or counterfactual conditional, appear in two forms in Yavpe, either with irrealis modals in the then clause or with the irrealis future suffix /-ha/ on the then clause. Both possibilities are acceptable and grammatical, consultants showing individual (and characteristic) preferences for one over another. Examples of each type are provided for contrast.

(35) m-tʔol-k m-rav-h m-ʔom-k m-wi:-v-a ʔhan-ha

2-cook-ss 2-much-irr 2-not-ss 2-do-af-irr good-irr

"If you hadn't cooked it so much, it would have been good."

(36) hma:ñ-m-wi:y-ñu ?pa:yk pa:-m-wi(-w)-o-k m-yu:-v-a

children-2-have-dem Yavpe obj-2-do-(af)-bene-ss 2-be-af-irr

?han-ha

good-irr

"If you had taught your kids Yavapai, it would have been good." (AS)

(37) pa:hmi:-c ?-yu:-v-a ke hma:ñ ?-wi:y-h ?-?om-h

man-sbj 1-be-af-irr neg children 1-have-irr 1-not-irr

?-yi:-θ-a

1-mod-mod-tns

"If I had been a man I would not have had children."

(38) ?ña-c ?-ya:m-h ?-yi:-θ-a ?c-?-rav-h ?-?om-k

1-sbj 1-go-irr 1-mod-mod-tns dum-1-sick-irr 1-not-ss

?-yu:-v-a

1-be-af-tns

"I would have gone had I not been sick."

(39) va-k m-yu-k m-yu:-v-a tsyom-v-a m-?u:-ñ-h

here-at 2-be-ss 2-be-af-tns pull-pass-abs 2-see-perf-irr

m-hi:-θ-a

2-mod-mod-tns

"If you had been here, you could have seen the tug-of-war."

In an earlier version of this paper, I called the form of the if-clause auxiliary a "past conditional" construction. More recent field work reveals that it is not restricted to past time sentences, but appears in at least one other semantically irrealis sentence type, a kind of subjunctive.

(40) vya ?-ma:-k ?-yu:-v-a pe:

this 1-eat-ss 1-be-af-irr conj

"What would happen if I ate this?" "And as for this, what would happen if I ate it?"

(41) c?al-k yu:-v-a pe:

go out-ss be-af-irr conj

"What would happen if he left?" "And if he left...?"

Just what makes this construction counterfactual is not immediately obvious. The presence of "irrealis" /-a/ alone could not be responsible since: (a) this segment does not have sufficient semantic force by itself to bear the entire load of counterfactual and conditional meanings, (b) this segment is absent in Havasupai and Hualapai versions of the construction.

The /-v-/ is a likely candidate for these meanings although one then strains one's analytic imagination trying to relate "counterfactual" to any of the other meanings of /-v-/: medio-passive, causative, demonstrative.

The most plausible analysis I can come up with, without positing a whole set of homophonous morphemes, is this: /-v-/ is a demonstrative and the /-a/ is an irrealis marker or a non-present, i.e. non-manifest, tense marker, equivalent in every way to the /-a/ that appears with non-present relative clauses such as

qʷaθk?ol ?-ma:-v-a

apple 1-eat-dem-tns

"the apple I ate"

If this is so, then the counterfactual reading comes not from the auxiliary but from something with which it patterns in the sentence. In other words, the auxiliary is nothing but a nominalizing device. Looking at it this way, we might re-gloss (35)-(37) in the following fashions, respectively:

(35a) "Your not having done the overcooking of it would be good."

(36b) "Your having taught your children Yavapai would be good."

(37b) "My being a man having happened, I would not have had the children I did."

These translations, albeit clumsy, are equivalent to the more elegant "if... then" forms they were originally couched in.

In examples (40) and (41) moreover, we find additional support for this premise. We know that the conjunction pe: literally means "and as for." Therefore (40) can be glossed (40a) "And as for my having eaten...?" "And what about my eating this apple?" "Given my eating of the apple, so what?" This way of looking at things at least has the virtue of relating (40) and (41) to the rest of the so-called counterfactual-conditionals. In other words, there is no need to posit a separate subjunctive auxiliary for (40) and (41) separate and distinct from, yet

at the same time formally identical with, the counterfactual ones. A nominalization hypothesis simplifies the situation enormously.

If these are in fact nominalizations however, they should take case markers, as relative clauses do in sentences like

q^{w}aθk?ol	?-ma:-v-a-c	?han-kñ
apple	1-eat-dem-tns-sbj	good-cmp

"The apple I ate was a good one."

As far as I can tell, these counterfactual-conditionals or past conditionals do not take case markers, not even where they would be subject nominalizations. Unless one can justify a claim that they are object nominalizations, and consequently always unmarked, or in some other way explain the absence of case markers, the appeal of the nominalization hypothesis is considerably reduced.

In Havasupai, sentences of this type have the "if clauses" marked as verbs rather than nominalizations, e.g.

(42) va-k m-yu-k m-yu:-v-k tug-o-war m-tye:v-ñ-h

here-at 2-be-ss 2-be-af-ss 2-mix-conj-irr

"If you had been here, you could have joined in the tug-o'-war."

(43) ?pa-v-c ?-yu-ha ?-yu-v-k vkak hma:ñ ?-wiy-ha

man-dem-sbj 1-be-irr 1-be-af-ss neg children 1-have-irr

?-t?op-k

1-not-nonfactive (?)

"If I had been a man, I would not have had children."

It is still possible to look at these "if clauses" as nominals if one is willing to analyze them as partitives or partitive-like structures. I cannot conceive of how to motivate such an analysis, but assuming that one could, then perhaps (42) could be rendered "Of your having been here, you could have joined in the tug-of-war." with the irrealis /-h/ on /m-tye:v-ñ-h/ indicating that in fact you could not have participated because you were not here. Sentence (43), with irrealis markers in both "if" and "then" clauses, is easier to fit into this schema; it would translate, "Of my having been a man/were it that I had been a man... I would not have had the children I had." The irrealis marker on /?-yu-ha/ signals that speaker is not a man, but is merely talking about the possibility, and the irrealis marker on /?-wiy-ha ?-t?op-k/ indicates the oppositive of /?-wiy ?-t?op-k/ I don't have children. Thus, (43) presupposes both femaleness and children, implies that one follows from the other, and asserts that the dependent condition could have been altered by a change in the antecedent situation.

This Havasupai evidence lends support to the argument that counterfactual readings are imposed on "if clauses" from elsewhere in the sentence, i.e. that such readings are not necessarily properties of the clauses themselves. It does not help us decide upon a structural analysis for these utterance types however, offering instead yet another possibility for characterizing them. In the absence of decisive evidence, the precise structure of these constructions is a moot issue. This being the case, further discussion of them should properly follow further field work.

3.3 Negation

Negation is a complicated topic in Upland Yuman, and anything like a full account of it is missing from the literature. Consequently, this section contains only the most rudimentary comments on negated sentences, the point being to demonstrate that they are examples of the irrealis category, not to make sophisticated observations about the intricacies of negation.

Sentences are negated in Verde Valley Yavpe by a negative verb /ʔom/ accompanied by an optional particle /ke/. The negating verb follows the verb it negates, which is marked by irrealis /-h/. The negated verb agrees in person, and optionally in number, with its auxiliary, e.g.

(44) ʔña-c ke tyac ʔ-ma:-h ʔ-ʔom-km

1-sbj neg corn 1-eat-irr 1-not-inc

"I wasn't eating corn." "I didn't eat the corn."

(45) θala-c hamsi: ʔʔi: ckʸat-o-h ʔom-k-θ-o: ke ʔha·n-h no:

Thala-sbj Hamsi wood cut-bene-irr not-ss-mod-mod neg good-irr fut

"If Thala doesn't cut wood for Hamsi, it isn't going to be good."

(46) kavyu-m hañko-ñu m-ma:-h m-ʔom-eʔ

why-allo frog-dem 2-eat-irr 2-not-Q

"Why don't you eat frogs?"

(47) Maria-c ʔsit-k va:-kñ tuwi:-k ʔom-c-kñ

Maria-sbj one-ss come-cmp rest-ss not-pl-cmp

"Mary came by herself, the others didn't (come)."

(48) ññu kθar ke qec-h ʔom-c yu-m

that dog neg small-irr not-sbj be-allo

"That is not a small dog."

(50) way+?-la:y-c-kñ kula ?c ma:-h ?om-m

1-angry-pl-cmp Kula dum eat-irr not-allo

"We were angry at Kula for not eating."

(51) ke way+?-la:y-c-h ?-?om-kñ kula ?c ma:-m

neg 1-angry-pl-irr 1-not-cmp Kula dum eat-allo

"We were not angry at Kula for eating."

(52) ññu-c-c hanksav-c ke va:m hʷa:v-h ?om-c-km

that-pl-sbj scorpion-sbj neg here go+multi-irr not-pl-inc

yi:-c-h yi:te: ññu-c-c ca:m-c-km

think-pl-irr but that-pl-sbj miss-pl-inc

"They think there are no scorpions here but they're mistaken."

(53) ññu-c-c ke ya?pa:-c-h ?om-i hanksav va:m

that-pl-sbj neg believe-pl-irr not-tns scorpions here

hʷa:v-km yi:-c-h yi:te:

go+multi-inc think-pl-irr but

"They don't believe that scorpions live here but they're wrong."

The last two examples demonstrate that the negation auxiliary /?om/ moves freely, even in so-called non-factive sentences. In (52) it negates the clause "scorpions go around (multiply) here." At the same time the verb "to think" receives its irrealis marking by being within the scope of /yi:te:/. In (53) /?om/ negates the clause "they believe" while /yi:te:/ still has scope over "think," here used as part of the verb "to believe."

It is a fact of Yavapai that "cognitive" verbs like believe and dream incorporate the verb "to think: in their syntactic pattern. Their complements normally follow them (i.e., they are embedded below them in right-branching structures), and these complements are in turn followed by fully inflected forms of the verb "to think." Actually, given that Yavapai is an SOV language, it is probably more accurate to say that the verb "to think" is the highest verb, that its complement is below and to its left, and that the verbs to dream and believe are incorporated by it, merely specifying the nature of the cognitive process. (A similar argument could be made for the so-called vocal behavior verbs.)

Given only surface structure patterns to go on, however, we can still see differences in the messages of (52) and (53). The former asserts that

there is a group of individuals who believe, mistakenly, that scorpions do not live in a particular place. On the other hand, (53) asserts that there is a group of individuals who do not believe that scorpions exist in that place and in disbelieving this, are mistaken. It is not clear whether these sentences are exact paraphrases of each other, but they have at least this much in common: they both assert the existence of a group of people who hold certain beliefs about scorpions and they both assert that these beliefs are contrary to fact. It is important to note that this second assertion is made by the verbal /yi:te:/ and would be so made even if /yi:te:/ were not followed by other verbs such as /ca:m/ to miss the mark, to be mistaken.

4.0 Summary and Conclusions

This survey is not complete without mention of certain grammatical phenomena not formally included in Yavpe's irrealis category. For if "irrealis" means "unrealized" there is no explanation of the fact that certain verbs like think, want, dream, pretend, say, and promise do not fit this pattern. If there are no criteria for distinguishing the formally irrealis from the other "subjunctive" verbs, then our definition of the category is tautological: irrealis verbs are those marked with the affixes /-h/, /-a/ or /-ha/, irrealis markers. Irrealis markers are suffixes conditioned by irrealis verbs. It is completely circular. And it is no more revealing or no less arbitrary than an appeal to verb classes or verb declensions would be.

In the earlier version of this paper, I discussed a number of the non-factive and counterfactual verbs without contrasting them in any coherent fashion to the formally irrealis verbs. I have listed them again below, this time in opposition to the irrealis verb in an attempt to present a clearer picture of the situation.

1. Verbs, Auxiliaries, and Particles that Require Irrealis Morphemes on Preceding Verbs

always		sometimes	
ma:t	probability, uncertainty	ono:	future
yi:θ	counterfactual	yi:	think
hi:θ	counterfactual	?i	inchoative
yi:te:	but, counter-expectancy		
li:	should, obligation		
no:	must, necessity		
?om	not		

2. Syntactically Irrealis Elements that Require Irrealis Markers Elsewhere

k-θ-o: conditional, future condition
yu:-v-a counterfactual
wi:-v-a counterfactual
?i:-v-a counterfactual
simple future tense semantics

3. "Subjunctive" Verbs that Do Not Take Irrealis Morphology but Take "Non-Factive" /-k/ Instead

kʷal+yi	want, desire
hna:q	want, lack
yi:	think, hope, wish
ya?pa...(yi)	believe
ckkʷi...?i	ask
kna:v...?i	tell
?i	say, report, promise
vca:r...?i	yell
tsma:c...(yi)	dream
?i:v	pretend
e:...yi	like, love
(o)kʷa	feel

There is a pattern to all this even if it is not without its erratic elements. With the exception of the modal /ma:t/ the verbs and auxiliaries listed under (1) and (2) are concerned with actions or with states that do not exist in the present. They are states that failed to materialize, or have not yet materialized, or are in the processing of materializing. Even the modals /li:/ and /no:/, which describe how things should be, bear the implication that they are not currently that way. In other words, all these words, except /ma:t/, presuppose the non-existence of their complements at the time they are uttered.

The other set, the non-irrealis subjunctives, also incorporate the idea of irreality or unreality, but in a different fashion. While none of these verbs presupposes the truth of its complement, only one of them, /?i:v/, actually presupposes its converse.

Where /?i:v/ is involved, the presupposition is counterfactual or rather negative factive. To "pretend" means to behave in such a way that one indicates he is something he is not. Why, then, is this verb not grouped with the irrealis set, which would appear to be more hospitable to its presuppositional structure?

The answer may be that the non-factive subjunctives, including /?i:v/, are all cognitive or vocal activity verbs, and as such all denote processes originating within an animate being. They denote processes generated within, not imposed from the outside. They are, in fact, human-centered activities. The irrealis verbs, on the other hand, refer to states or activities in the world beyond control of human mind, or at a distance from it.

That so many of the irrealis verbs are built on the stem /yi:/ to think, and that this verb has dual membership in the formal irrealis and formal "subjunctive" sets is significant. Why is it that /yi:/, the most salient of the cognitive process semantic set verbs, be the very core of the non-cognitive set? The answer, I think, is historical and developmental.

Irrealis /-h/ is quite old historically, and is reconstructable as proto-Yuman /*-x/. The affix /-k/ is also old, though it is not clear that

we can reconstruct a non-factive or subjunctive meaning for it. It looks as if the irrealis category may have originally included these non-factive subjunctives, which only later were accommodated to a new semantic paradigm. If the early irrealis category included the cognitive verbs, there is no reason why /yi:/ should not have been an important root upon which to build irrealis particles and modals. Assuming that such derivational products solidified, or became frozen forms, before the hypothesized split of the irrealis category into "irrealis" and "cognitive-non-factive," we can account quite nicely for the "cognitive" root in the non-cognitive modals.

At this stage, the hypothesis is proferred with considerable tentativeness. It remains to be seen whether the historical reconstruction will confirm or deny such speculation.

In the meantime, the synchronic generalization about cognitive vs. non-cognitive unreal states seems to hold, and to bring order into these syntactic and semantic domains.

Compound Tense Markers in Tolkapaya

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One of the distinguishing morphological characteristics of the Pai languages is the appearance of reduced auxiliaries or "compound tense markers" that are suffixed to the verb. The shape of these markers varies slightly from language to language; among the possible forms in Yavapai are -kyum and -kwim:[1]

(1) kah^{w}íli-kyum
run-CTns
'He ran away.'

Historically, it is fairly clear that these markers are combinations of an "existential" auxiliary (Langdon 1974) plus syntactic affixes. Yavapai -kyum, for instance, can be analyzed as the auxiliary yú 'be', surrounded by the switch reference markers -k 'same subject' and -m 'different subject'; -kwim has a similar analysis involving the auxiliary wí 'do'. A more difficult question is whether the compound tense markers are still segmentable in this way synchronically. This question is of interest because compound tense markers are a standard feature of simple sentences in all the Pai languages.

In this paper I discuss evidence that bears on this question from the Tolkapaya dialect of Yavapai (also known as Western Yavapai). Tolkapaya differs from other dialects of Yavapai (see Kendall 1974) in having a particularly rich system of compound tense markers. I will argue that these markers no longer function as combinations of auxiliary plus syntactic affixes; rather, they have been reanalyzed as single-morpheme tense markers that coexist with the older and historically less complex tense markers of the language. Such a reanalysis produces a striking realignment of the verb morphology. I will suggest further that this change --while striking-- does not simplify the grammar in any obvious sense. As such, it represents a small but interesting contribution to the study of syntactic reanalysis.

The Tolkapaya described in this paper is that spoken by Molly S. Fasthorse, a longtime resident of Los Angeles and perhaps the only surviving speaker of the Tolkapaya dialect. My transcription is high-level phonetic.[2] Work on this project was supported by the Department of Linguistics, UCSD. Thanks to Margaret Langdon for her encouragement.

1.1. I begin by giving a brief overview of the larger systems of auxiliaries and tense markers in Tolkapaya. Some knowledge of these is a prerequisite to any discussion of the compound tense markers.

Tolkapaya has a set of auxiliaries that occur optionally after the main verb; these differ from main verbs in that they do not have to be inflected for number. (2) lists some representative auxiliaries (see Langdon 1974):

(2)

unú:	'future'	wár	'also'	yú	'be'
ʔúm	'not'	uk^{w}á	'make a sound, feel'	wí	'do'
				ʔí	'say'

The auxiliaries unú:, ʔúm, wár, and ukʷá contribute to the semantic content of the sentence. On the other hand, yú, wí, and ʔí cannot be identified as clearly as meaning-bearing; they seem to serve principally to identify the main verb as "stative" (yú), "active" (wí), or "communicative" (ʔí). The distribution of yú and wí is discussed further below. I ignore ʔí here, since it is not well understood in any Yuman language and since it occurs rarely as an auxiliary in Ms. Fasthorse's dialect.

Tolkapaya also has a set of tense markers that are suffixed to auxiliaries and to main verbs; these appear to be in complementary distribution with the switch reference markers (Kendall 1972). There are three tense markers, which I will refer to as "simple" because they are historically and synchronically unanalyzable:

(3) -i "present" -ha 'irrealis'
-a "past"

-Ha is an irrealis marker. The syntactic functions of -a and -i are uncertain, and so I have placed their glosses (due to Kendall 1972) in double quotes. Despite this, it seems relatively clear that all three markers have some tense or aspectual function, and that in terms of distribution they form a syntactically unified class.

1.2. In addition to these verbal elements, Tolkapaya has eight compound tense markers. Two of these can be identified as phonologically reduced versions of other compound tense markers; according to Kendall (1972), they are the only compound tense markers in the Yavapé dialect of Yavapai:

(4)

	Noncompleted	Completed
Reduced type	-kem	-kinʸ

It is with the other six compound tense markers that we are principally concerned. These are:

(5)

	Noncompleted	Completed
yú-type	-kyum	-kyunʸ
wí-type	-kwim	-kwinʸ
Pred. Nominal type	-cyum	-cyunʸ

As suggested by (5), these markers differ according to aspect and predicate type. Compound tense markers ending in -m indicate noncompleted aspect; those ending in -nʸ indicate completed aspect. Markers beginning with -c- are attached to predicate nominals; those beginning with -k- are attached principally to verbs. (6) gives some examples of these forms:

(6)a. vá-k ʔe-páy-kyum
Dem-Loc 1-sitPL-CTns
'We're sitting here.'

b. huá:v-enʸ yú-ci-kyunʸ
wander-Compl be-Pl-CTns
'They used to wander around.'

d. ʔnʸá-ce ʔisemá hlú:yi-kwinʸ
I-Subj root dig-CTns
'I already dug up roots.'

e. cekuwár-v-i qiyáti-cyum
laugh-Pass-Tns very-CTns
'He's very funny.'

c. ʔáʔa ʔe-má-kwim
cactus 1-eat-CTns
'I'm eating cactus.'

f. n^{y}evyú-cyun^{y}
Dem-CTns
'She was this one.'

By far the most frequent of the compound tense markers is -kyum. -Kyun^{y}, -kwim, -kwin^{y}, and -cyum occur often, while -cyun^{y} is relatively rare.

Perhaps the most surprising of these forms from a Yuman standpoint are the tense markers for predicate nominals, -cyum and -cyun^{y}. Predicate nominals in most Yuman languages do not have the properties of main verbs, but occur in a construction where they are inflected with the subject case marker -c and accompanied by the main verb yú 'be'; the syntactic subject of such a construction is in the unmarked (direct object) case. Schematically, SUBJ PREDNOM-c yú (Munro 1974). That -cyum and -cyun^{y} no longer reflect this original construction is suggested by two facts. First, the subject of a predicate nominal sentence like (6e) in Tolkapaya can be inflected with the subject case marker -c:

(7) ʔn^{y}á-ce Bill lewá-vi-cyum
I-Subj B. spouse-Def-CTns
'I'm Bill's wife.'

Such inflection is possible (optionally) for all subjects of matrix verbs, but was impossible in the original predicate nominal construction. Second, the tense markers -cyum and -cyun^{y} can occasionally be replaced by the tense marker -kyum:

(8) ʔn^{y}á vuqí-vi-kyum
I woman-Def-CTns
'I'm a woman.'

This also was impossible in the original predicate nominal construction.

The fact that -cyum and -cyun^{y} can alternate with a compound tense marker indicates that they too function as compound tense markers in Tolkapaya; further, it shows that the original predicate nominal construction has been (or is being) reanalyzed as one in which the predicate nominal occupies the position of a main verb. This view is supported by the person restriction on -cyum and -cyun^{y}. Unlike the other compound tense markers, -cyum and -cyun^{y} occur only in sentences with first or third person subjects; sentences with second person subjects must use the original predicate nominal construction with the main verb yú 'be', which is available for all persons. This skewed distribution provides a third piece of evidence that the predicate nominal construction is in the process of being reanalyzed.

The historical origins of the compound tense markers are fairly clear. -Cyum and -cyun^{y} are descended from the older predicate nominal construction described above; the -c- in these forms is the subject marker that was originally suffixed to the predicate nominal. -Kyum, -kyun^{y}, -kwim, -kwin^{y} are descended from a verbal construction in which the main verb was followed by an auxiliary yú 'be' or wí 'do'. The -k- in these forms is the switch reference -k 'same subject', which was originally suffixed to the main verb because it had the same subject

as the auxiliary. Finally, all of the markers show a regular contrast between final -m and -n^{y}. -N^{y} is a marker of completed aspect that is still productive in Tolkapaya (6b). -M can be identified as the switch reference -m 'different subject' that appears on matrix verbs in other Yuman languages. This gives us the following picture of the historical source of the compound tense markers:

(9) yú-type and wí-type: (NP) V-k $\left\{ \begin{matrix} yú \\ wí \end{matrix} \right\}$ - $\left\{ \begin{matrix} m \\ n^{y} \end{matrix} \right\}$

Pred. Nominal type: (NP) N-c yú - $\left\{ \begin{matrix} m \\ n^{y} \end{matrix} \right\}$

If the schema in (9) were still valid synchronically for Tolkapaya, it would provide us with an extremely elegant account of the compound tense markers. However, this schema is no longer correct. Below I give seven arguments that the forms in (5) have been reanalyzed as tense markers in complementary distribution with the simple tense markers of (3). This reanalysis has the odd effect of complicating the system of tense affixes without substantially simplifying the system of verbal auxiliaries, since the auxiliaries yú and wí are still completely productive in Tolkapaya.

2.1. The arguments in this section are organized as follows. 2.2 gives four arguments that the -yu- and -wi- in compound tense markers do not behave like the yú and wí auxiliaries. (In addition, these arguments show that the -yu- in -cyum and -cyun^{y} does not behave like the main verb yú 'be'.) 2.3 gives three arguments that the -m in -kyum, -kwim, and -cyum does not behave like a switch reference marker. The arguments are presented in order of increasing strength; taken together, they establish that the compound tense markers are no longer segmentable synchronically in Tolkapaya.

2.2. Four pieces of evidence argue that the -yu- and -wi- in compound tense markers cannot be identified as synchronic auxiliaries. The first two of these also appear in Kendall (1974).

2.2.1. Phonologically, -yu- and -wi- are distinguished from true auxiliaries by stress. Auxiliaries in Tolkapaya are lightly stressed; this includes the auxiliaries yú and wí:

(10) ʔe-simiyé: rá-k yú-n^{y}e
1-forget very-SS be-Compl
'I forgot it.'

In contrast, the -yu- and -wi- in compound tense markers are never stressed.

2.2.2. -Yu- and -wi- are also distinguished from true auxiliaries by person and number agreement. As suggested above, auxiliaries in Tolkapaya can optionally be inflected for number; they can also be inflected for person:

(11)a. wa-n^{y}á-c-ak yú-c-o
mind-forget-Pl-SS be-Pl-Nvid
'They forgot.'

c. vekʰá me-cóv-ek mi-yú-we:
who? 2-fight-SS 2-be-Q
'Who did you fight with?'

b. má-c-ik wí-c-o
eat-Pl-SS do-Pl-Evid
'They ate it.'

In contrast, the -yu- and -wi- in compound tense markers are never inflected for person or number.

2.2.3. Syntactically, -yu- and -wi- are distinguished from true auxiliaries by their cooccurrence restrictions. As mentioned in 1.1, the choice between the auxiliaries yú and wí is determined by the semantic-syntactic type of the main verb; this situation occurs in a number of Yuman languages besides Tolkapaya. The exact difference between yú and wí has been defined slightly differently for different Yuman languages. In Walapai, according to Redden (1966), the difference is one of state vs. action; in Yuma, according to Halpern (this Conference), it is one of behavior vs. performance. In Tolkapaya, the difference seems to be as follows. Wí is used with transitive verbs that take an agent and (noncoreferential) direct object:

(12)a. yúre me-kaká:vi-c-o wí-w-i
dress 2-buy-Pl-Ben do-Evid-Tns
'They bought you a dress.'

b. néhi-k wí-w-kwim
kill-SS do-Evid-CTns
'He killed it.'

Yú is used with intransitives and with psychological verbs, which do not take an agentive subject:

(13)a. huá:v-en^{y} yú-ci-kyun^{y}
wander-Compl be-Pl-CTns
'They used to wander around.'

b. ʔe-simiyé: rá-k yú-n^{y}e
1-forget very-SS be-Compl
'I forgot it.'

It is also used with verbs that are passive, reflexive, or reciprocal:

(14)a. John-ce néh-v-ik yú-i
J.-Subj kill-Pass-SS be-Tns
'John was killed.'

b. yé:m wiyát-v-ik yú:-kyum
self hitPL-Refl-SS be-CTns
'They hit themselves.'

c. yé:m kici-ʔé:-v-ik yú-i
self ?-give-Refl-SS be-Tns
'They gave each other something.'

In Langacker's (1976) terms, the generalization is that wí occurs with transitive verbs whose agent and object arguments are distinct; yú occurs elsewhere.

Significantly, the cooccurrence restrictions for -yu- and -wi- in compound tense markers are not exactly the same as those for the yú and wí auxiliaries. -Wi- occurs only when the main verb is transitive and takes an agent and (noncoreferential) direct object. This restriction is like that for the wí auxiliary:

(15) ʔn^{y}á-ce ʔisemá hlú:yi-kwim
I-Subj root dig-CTns
'I'm digging up roots.'

But -yu- can occur with all verbs regardless of their transitivity; in particular, it can be used with transitives that take an agent and object NP:

(16)a. ʔnʸá-ce ʔisemá hlú:yi-kyum
I-Subj root dig-CTns
'I'm digging up roots.'

b. Olga ʔíla kuʔú:-l cekʷá-kyum
O. worm bask.-Iness put-CTns
'Olga put worms in a basket.'

c. ʔqʷáqata me-taʔóli-kyunʸ
beef 2-boil-CTns
'You boiled the meat.'

Historically, what seems to have happened in the compound tense markers is that the unmarked -yu- has been generalized to all verbs regardless of the distinctness of their arguments. A result of this development is that the -yu- in (16) has different cooccurrence restrictions synchronically from the yú auxiliary. Hence it argues that the -yu- in compound tense markers and the yú auxiliary are no longer the same.

2.2.4. Finally, -yu- and -wi- are distinguished from true auxiliaries by their distribution in questions. Questions in Tolkapaya are formed by suffixing a question marker to the verb. The question markers are -e:, -we:, or overlength on the stem vowel; they are obligatory in yes-no questions but optional in wh-questions:

(17)a. pa:-ʔ-me-sepó:-e:
Pl-1-2-know-Q
'Do you remember us?'

b. me-θí-k wal-m-yé:
2-drink-SS mind-2-wantQ
'Do you want to drink?'
(from wal..yí 'want')

If the main verb is accompanied by an auxiliary, the question marker is suffixed to the auxiliary:

(18)a. ʔkʷéθa me-póq-ek me-wí:-we:
what? 2-spill-SS 2-do-Q
'What did you spill?'

b. má:-ce me-šéve-nʸe mi-yú:
you-Subj 2-angry-Compl 2-beQ
'Would you be angry?'

The simple tense markers -i, -a, -ha and the switch reference markers -k and -m never appear on the last verb (or auxiliary) of a question. Since the question marker occupies the same slot as these markers would occupy in a declarative sentence, it appears that the question marker replaces them.

Significantly, compound tense markers also fail to appear on the last verb of a question. For compound tense markers ending in -m, this failure might conceivably be due to the fact that the final -m is a (historical) switch reference marker. Such an explanation is not, however, available for compound tense markers ending in -nʸ. This is because the completed aspect marker --the historical source of -nʸ in these forms-- is regularly allowed in questions:

(19)a. má:-ce me-síve-nʸ-e:
you-Subj 2-read-Compl-Q
'Did you read it?'

b. ka-vi-yú-nʸ-e:
Q-Def-be-Compl-Q
'How was he?'

Given (18-19), the failure of -kyunʸ, -kwinʸ, and -cyunʸ to appear in questions argues that they are no longer segmentable as sequences of an auxiliary plus the completed aspect. Rather, they have been reanalyzed as simple tense markers, and pattern with these in their absence from questions.

2.3. In this section, I present three arguments that the -m in

compound tense markers no longer functions as a switch reference marker.

In Tolkapaya, verbs that are coordinated or loosely subordinated to some other verb can be suffixed with the switch reference markers -K or -m (Jacobsen 1967). -K indicates that the subjects of the two verbs are the same; -m indicates that they are different:

(20) ʔehmá síl-ic-em ʔahán-i
quail fry-Pl-DS good-Tns
'We fried the quail and it's good.'

Although choice of -K or -m is generally determined by the reference of the subjects, there are environments where the choice is suspended and only one (or neither) of the markers is allowed. These environments provide the arguments that the switch reference -m and the -m in compound tense markers are no longer the same.

2.3.1. The -m in compound tense markers differs from the switch reference -m in its distribution in relative clauses. In Tolkapaya, the switch reference markers never appear in relative clauses. This is doubtless because relative clauses act as NPs of the clause in which they are embedded; as such, they take ordinary NP case marking and do not count as coordinated or loosely subordinated. -K and -m fail to occur in relative clauses regardless of whether the relative clause is headless (Gorbet 1974) or headed. (21) gives an example of a headless relative clause; (22) gives an example of a headed one:

(21) vuqúya-c yúri nʸi-yó:v-c-a:(/*m) ʔwá-nʸu-l sehá:v-i
[women-Subj dress Sbd-make-Pl-Tns] house-Dem-Iness hang-Tns
'The dress that the girls made is hanging in the house.'

(22) kuʔú:-nʸe Olga-ce ʔíla nʸe-cekʷá:-w-a(/*m) me-tehót-i
bask.-Dem [O.-Subj worm Sbd-put-Evid-Tns] 2-hide-Tns
'Hide the basket that Olga put the worms in.'

(Although (21) has another reading where the embedded clause is not a relative clause and -m is allowed, this does not concern us here.)

In contrast, the -m in compound tense markers does occur in relative clauses. Consider (23), where the relative clause is headless:

(23) qetkó:-k kapéla nʸe-cikikʷá-kyum nʸevyú-ce ʔpe:
[intest.-Loc bag Sbd-stuff-CTns] Dem-Subj ?
'Is this the paper bag that you stuffed with cow's intestines?'

(The -nʸ in compound tense markers also occurs in relative clauses. This point, though irrelevant to the argument, is mentioned here to round out the facts:

(24) ʔnʸá-ce kʷetaʔóli ʔqʷáqata me-taʔóli-kyunʸ ʔa-hanáːqi-kyum
I-Subj pot [beef 2-boil-CTns] 1-want-CTns
'I want the pot that you boiled the meat in.')

Although relative clauses like (23) do not occur that often, they are perfectly grammatical in Tolkapaya. Hence they argue that the -m in compound tense markers no longer acts as a switch reference marker.

2.3.2. The -m in compound tense markers also differs from the switch reference -m in its distribution in parallel constructions. In

Tolkapaya certain types of coordinate sentences do not allow the switch reference -m. The defining characteristic of these structures seems to be that their conjuncts are syntactically and semantically parallel (for a Mohave parallel see Munro 1974):

(25) víya ku?á:-ve-ce ?h^{w}át-i(/*m), ?esíti-k-a havasú-i
this bask.-Def-Subj red-Tns one-SS-Aug blue-Tns
'This basket is red, the other is blue.'

Although the clauses in (25) have different subjects, the switch reference -m is not allowed. This seems to be a function of the construction rather than the particular verbs involved, since color adjectives can ordinarily be suffixed with switch reference markers:

(26) ?lewí k^{w}áθe-k yá-k yák-i
snake yellow-SS front-Loc lie-Tns
'A yellow snake is lying in front of it.'

Parallel constructions like (25) are rare in my data; further, it is obscure why (25) is considered parallel but similar coordinate sentences are not:

(27) ?n^{y}á-ce ?-sa?ár-im kaká:vu-kwim
I-Subj 1-sell-DS buy-CTns
'I sold it and she bought it.'

Nonetheless, whatever the exact explanation for (25), it seems clear that some mechanism must prevent it from taking a switch reference marker. But the same mechanism must allow this construction if its -m is part of a compound tense marker:

(28) víya ?ehá:-vi-cyum, ?esíti-k huwáli-cyum
this cottonw.-Def-CTns one-SS pine-CTns
'This is a cottonwood, the other is a pine.'

(28) is exactly like (25) except that it contains the compound tense marker -cyum. The grammaticality of (28) provides a second argument that the switch reference -m and the compound tense marker -m are no longer the same.

2.3.3. Finally, the -m in compound tense markers differs from the switch reference -m in its interaction with verbs of statement or belief.

In addition to distinguishing 'same subject' from 'different subject', -k and -m in Tolkapaya are used to distinguish belief from reality. -K indicates belief, doubt, or opinion; -m indicates fact or reality. This use of -k and -m is rare in matrix sentences:

(29)a. yúri me-kaká:v-ic-o yí:-k-a
dress 2-buy-Pl-Ben think-SS-Aug
'I think they bought you a dress.'

b. cúre huwák vuá:ve-k ?í yíte: humúk vuá:ve yíte: ?í-m
year two ten-SS say but three ten but say-DS
'He says he's twenty, but he's really thirty.'

The belief-reality contrast is exploited most regularly in complement sentences --in particular, in complements of verbs of statement or belief like ?í 'say', yí 'think', and wal..yí 'want'. Since these com-

plements represent the belief or opinion of the next higher subject, they are suffixed with -k regardless of whether their subjects are the same or different:

(30)a. mehán^{y}a lá:wi:-k ʔí-kem
child many-SS say-CTns
'She says her children are many.'

c. Gloria pa:-n^{y}e-ʔév-ik wál
G. Pl-3/1-hear-SS mind
'I want Gloria to hear us.'
(wál from wal..yí)

b. ʔin^{y}á:-hu-m ʔe-me-wále-k(/*m) ʔ-yí:-kyun^{y}
day-Dem-DS 1-2-seek-SS 1-think-CTns
'I thought you were looking for me yesterday.'

Although -k appears regularly on these complements, it is optional, and it is possible for a simple tense marker to occur instead. This suggests that it is only the switch reference -m that is excluded from this construction:

(31) má:-ce me-swár-i(/*m) ʔí-ci-kem
you-Subj 2-sing-Tns say-Pl-CTns
'They want you to sing.'

Crucially, compound tense markers in -m can be suffixed to complements of verbs of statement or belief:

(32)a. n^{y}eθá-ce velewí-ci-kyum me-yí:
Dem-Pl correct-Pl-CTns 2-thinkQ
'Do you think they're right?'

b. wa-síva ce-páymi-kyum yí-ca-ye
mind-have Pl-losePL-CTns think-Pl-Tns
'They might think we've lost our senses.'

c. ʔeh^{w}á vuqí-va ʔeh^{w}á-vi-cyum ʔi-yí-hu ʔúm-i
stranger woman-Dem Apache-Def-CTns 1-think-Tns not-Tns
'I don't think she's an Apache woman.' (-hu assimilated from -ha 'irrealis')

Given that the switch reference -m is not allowed here, sentences like (32) argue that the -m in compound tense markers is no longer a switch reference marker. Further, since simple tense markers are allowed in this construction, sentences like (32) argue that the compound tense markers function as synchronic tense markers in Tolkapaya.

3. The effect of the reanalysis that I have argued for above is morphologically rather striking. Consider, for instance, the switch reference -m. From internal evidence and evidence from other Yavapai dialects (Kendall 1972), it is clear that the switch reference -m was originally quite common in matrix sentences in Tolkapaya. The form for sentences with yú and wí auxiliaries, for instance, was originally something like:

(33) VERB-k AUX-m/n^{y}

As a result of the reanalysis, however, the -m in (33) ceased to be segmentable as a switch reference marker. This, combined with the frequency of sentences like (33), seems to have contributed to the general demise of switch reference -m in matrix sentences in Tolkapaya. Today, -m occurs on auxiliaries in certain peculiar distributive con-

structions (34a). It also occurs regularly on the main verb yú 'be' in predicate nominal constructions (34b):

(34)a. ʔá:m-c-ek yú-m yú-c-i
come-Pl-SS be-DS be-Pl-Tns
'come often; come on and off'

b. haykó hʷána ʔi-yú-m
whiteman mex. 1-be-DS
'I'm a Mexican.'

But it has disappeared in all other types of matrix sentences. In particular, -m no longer occurs on the auxiliaries yú or wí in constructions like (12-14), and it is almost never found on main verbs like (35) (cf. though (29b)):

(35) pahmí-ve-c kahʷíl-i(/*m)
man-Def-Subj run-Tns
'The man ran away.'

Hence, as a result of the reanalysis that produced the compound tense markers, Tolkapaya has changed from a situation in which most sentences ended in switch reference -m to one in which almost no sentences end in this way.

A more difficult question is why the auxiliary constructions of (9) were reanalyzed as tense markers at all. In general, it is assumed that reanalysis contributes to the overall simplicity of the grammar by bringing underlying representations closer to their surface forms. In Kiparsky's (1971) terms, reanalysis maximizes the transparency of a given construction. While it is easy to think up reasons for considering the constructions in (9) nontransparent (and hence subject to reanalysis), it is hard to explain why not all instances of (9) were reanalyzed. For instance, it might be claimed that the reanalysis "simplified" the grammar by eliminating the semantically empty auxiliaries yú and wí. But this would fail to account for the fact that the yú and wí auxiliaries are still perfectly productive in Tolkapaya. Similarly, it might be claimed that the reanalysis was motivated by the desire to eliminate -nʸ or sentence-final -m (admittedly an opaque instance of a switch reference marker). But this could not explain why -nʸ is still productive, or why sentence-final -m still persists in several different, though rare, constructions.

In short, attributing the reanalysis to the nontransparency of any particular morpheme begs the question of why some instances of the morpheme are still productive. This amounts to saying that the reanalysis does not "simplify" the grammar in any obvious sense, since it creates new morphemes but fails to completely destroy their historical sources. I do not know any way out of this dilemma. Conceivably, one might suggest that the real reason for the reanalysis was to eliminate combinations of sentence-final auxiliaries plus -m. Such a suggestion allows the reanalysis to "simplify" the grammar, since combinations of this sort do not occur any longer. What remains to be explained is why this particular combination of morphemes should qualify as nontransparent; that is, why it should have needed to be reanalyzed at all.

[1] Possible compound tense markers in other Pai languages are Paipai -k-yʷm, -cʷm (Joel, this Conference), Walapai -kyu(nʸ), -kwi(nʸ) (Redden 1966), -k:-m (Winter, ms.), Havasupai -kyu, -kwi (Hinton 1976).

[2] In my transcription c = [č], unstressed e = [ə].

NO MORE SCHWA FOR YAVAPAI

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My previous approaches to the complex problem of the inorganic vowel, the epenthetic vowel, schwa, or whatever other name the phenomenon has in the literature, have led to ad hoc and counterintuitive conclusions.

A vowel is introduced between consonants; the vowel is schwa. After it has been inserted, it may be deleted. The deletion may be obligatory or optional depending on the position of schwa with respect to the stressed vowel(s) in the word. If it remains, it is modified to assume the approximate quality of one of the five vowels. The quality and quantity of schwa is dependent on its environment.

The three processes, (1) schwa insertion, (2) schwa deletion, and (3) schwa modification, require at least three rules (usually many more). The resulting rules and their subparts tell us much about the properties of phonological rules but very little about Yavapai phonology: a vowel is inserted and then may be deleted before it attains acoustic reality; it leaves no trace of its supposed existence. If allowed to remain, the schwa may be modified and then appear on the surface as another vowel, leaving again no trace of its former identity. These are the reasons that previous approaches were both ad hoc and counterintuitive.

The reasons for this Yumanist's inability to formulate the phenomenon more precisely are manifold. Theoretical orientation played a large role at an ealier date: autonomous phonemics could not account for this aspect of the vocalism phonemically. Generative phonology allows a 'legal,' but for reasons stated above, an unsatisfactory explanation of the data.

I have failed to account for the phenomenon satisfactorily because I have not attempted to answer a question which is itself an answer to a question, which I might have asked, but surely answered incorrectly.

The first question is: What is the reason for or purpose of the phenomenon? The answer comes in two parts: (1) some of the reduced vowels were at one time full, stressed vowels but have now been reduced to a degree where we can no longer recognize them as such; and (2) the remaining problematic 'vowels' are inorganic, appearing between consonantal segments to ease the articulation of otherwise difficult clusters.

The first answer is correct. There is evidence that some of the

vowels under discussion were at one time full vowels; for example, the derivational prefixes /sl-/ and /m-/, which figure in the names of body parts, clearly seem to be related to /sal/ 'arm; hand' and /mi/ 'foot.' There are many similar examples. Again, however, we have not been rigorous enough. The first answer is only partially correct. It does not actually answer the first question. It answers the question: For what reason are the vowels there? This is a perfectly worthy question and must be asked at some point in the analysis; however, it is not a paraphrase of the original question: What is the reason for or purpose of the phenomenon?

The second answer is also only partially correct. It is correct in answering that the phenomenon has something to do with consonant clusters and ease of articulation, but it, too, fails, and for the same reason the first answer fails. Both answers can never succeed. They contain the "instruments of their own destruction," as it were. A lack of understanding of the linguistic processes involved here are implicit in the formulation of both answers. It has not correctly identified 'the phenomenon.'

It is not a matter of vowels being inserted. By insisting on a strict vowel-consonant dichotomy, one will always fail to capture the phonological reality. There is a far more important dichotomy: syllabic vs. non-syllabic.

Vowels are not inserted between consonants; it is syllabicity. Each Yavapaí consonant must have a syllabic representation, although it may share its place in a syllable with another consonant. To achieve syllabicity the consonant "scans" the next segment. If the segment is syllabic, the consonant has achieved syllabicity; nothing further occurs. If the segment which the consonant is scanning in order to achieve syllabicity is not syllabic but capable of sustaining a syllabic peak; i.e. all [+syllabicity] segments (/č, β, θ, s, š, m, n, ɲ, l, r, lʸ, h, hʷ, ʔ, y, w/); that segment to the right is copied immediately to the left and becomes syllabic. The [+syllabicity] segment is now a geminate consonant.

Example sets:

(1) #ʔ+čɾ:#
#ʔččɾ:#
'fish'

(2) #k+βtéˑ#
#kββtéˑ#
'which is large'

(3) #ʔ+θɾ:#
#ʔθθɾ:#
'I drink (it)'

(4) #ʔsɾt+l#
#ʔssɾtl#
'(is) one'

(5) #mšéˑ#
#mššéˑ#
'one fears'

(6) #ʔmá:ɪ+ɪ# '(is) foamy'
#ʔmmá:ɪɪ#

(7) #t+nâk+β+ɪ# 'one rolls (as a hill)'
#tnnâkββɪ#

The rule proposed for gemination applies only optionally to the second [+syllabicity] segment in (7) since /k/ has in effect achieved a syllabic prominence from the stressed vowel.

(8) #hnáq+a# 'beaver'
#hnnáqa#

(9) #hɪâ# 'moon'
#hɪɪâ#

(10) #ʔrú·+ɪ# 'it is hot'
#ʔrrú·ɪ#

(11) #qɪʸê+p+ɪ# 'it is disliked'
#qɪɪʸêpɪ#

The preceding examples demonstrate the operation of the gemination rule on all the [+syllabicity] segments but the glides. The effect of the rule on /y/ and /w/ is obvious: they are realized as /i/ and /u/, respectively.

(12) #ʔ+yâ# 'my mouth'
#ʔɪyâ#

(13) #ʔ+wá# 'I sit'
#ʔuwá#

One might propose an intermediate step in the derivation showing a syllabic y or w: i.e. /y̩/ and /w̩/. This would be gratuitous.

/y/ and /w/ and the role they play are notable only in that they hint at the emergence of a very interesting interplay in the phonology between the vowels and the glides in general.

At the First Conference on Hokan Languages (University of California at San Diego, 1970), I mentioned parenthetically in a paper that the only source of pretonic-a in Yavapai was /h/ or /hʷ/. The general discussion concerned the fact that /h/ plays a role in Yavapai phonology. It devoices nasals, liquids, and the fricative /β/ when it immediately precedes these; it preaspirates stops and the affricate; and it aspirates stops and the fricative /č/ if metathesis with them has occurred. After affecting the consonants in these ways, /h/, especially in rapid speech, is deleted. One of the arguments supporting these statements was the fact that the realization of /h/ or /hʷ/ pretonically was /a/. (For a more detailed discussion, see Shaterian, "Yavapai [+sonorant] Segments," in press).

Examples:

(14) #ʔ+há:m+ɪ# 'I am looking away'
#ʔahá:mɪ#

(15) #m+hʷʃ# 'smell it (imperative sg.)'
#mahʷʃ#

The roots in (14) and (15) are /há:m/ and /hʷʃ/. /ʔ-/ and /m-/ are personal prefixes, first and second respectively. For the purposes of exposition the proposal of an intermediate step in these derivations is not gratuitous. Applying the gemination rule to the lexical entries in (14) and (15), one derives:

#ʔhhá:mɪ#
|
#ʔhhʷʃ#
|

The realization of /h/ as /a/ is as natural as the realizations of /y/ as /i/ and of /w/ as /u/, a compelling reason for treating /h/ together with /hʷ/ as glides.

The ineluctable questions posed by the foregoing evidence which clearly demonstrates the interplay between vowels and glides is: What can be said of the one remaining glide, /ʔ/? Does it also alternate at some level with one of the vowels? What is its syllabic or vocalic realization? What is /ʔ/?

The answers to the questions are at first somewhat confusing and disappointing. /ʔ/ is not the realization of either remaining vowel, /e/ or /o/. One must remember, though, that /e/ and /o/ alternate with /ay/ and /aw/ in many lexical items. Therefore, it is not surprising that the syllabic realization of /ʔ/ is neither /e/ or /o/. Indeed, it would upset the symmetry thus far established:

i ~ y u ~ w

a ~ h

It would also leave one vowel without a nonsyllabic alternate.

Consider the following derivations which include the intermediate /ʔ/ step:

(16) #ʔ+ʔʃ:# 'wood'
#ʔʔʔʃ:#
|
#ʔɪʔʃ:#

(17) #??é# 'is thick'
#???é#
|
#ʔəʔé#

(18) #?+?é·# 'I give'
#???é·#
|
#ʔəʔé·#

(19) #?+?á# 'saguaro'
#???á#
|
#ʔəʔá#

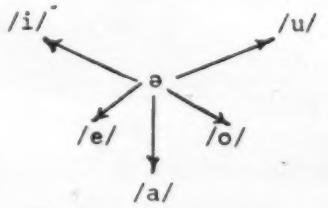
(20) #?+?ô# 'fire'
#???ô#
|
#ʔoʔô#

(21) #?+?ú·# "I see'
#???ú·#
|
#ʔuʔú·#

The example sets (16) through (21) shows that /?/ is realized vocalically as all five vowels; in this simplex environment, the vocalic realization of /?/ is the vowel of the stressed syllable.

More data need to be presented, however: later phonological rules alter the quality of the unstressed vowels in the examples given. The step in the derivation where (17) through (21) stop represents an idealized, very deliberate pronunciation of the forms. The more usual phonetic output would show the unstressed vowels somewhat lowered and centralized and devoiced. In rapid speech the centralization moves along a continuum toward the optimal neutral vowel [ə], the 'essence' of neutral phonation. In very rapid speech, Presto, the [ə] may be elided completely, a cessation of phonation. One needs hardly to be reminded that /?/ is the onset of phonation.

The answer to the questions is accordingly that there is an interplay between all the vowels and the glides and that there is perfect symmetry throughout. The syllabic realization of /?/ is the 'essence' of vocalicity, both [ə] and its modifications proceeding along a continuum to the five systematic phonemic vowels:



Notes On Walapai Syntax

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It is indeed a pleasure to see so many people working on Yuman languages. When I first went to work on Walapai in 1959, the only published study of a Yuman language was Halpern's very valuable study on Yuma. Much of the credit for spurring on the study of Yuman languages must of course go to Voegelin and Langdon. I am grateful for the kind words several of you have said about my work on Walapai. I am also grateful to those of you who have pointed out holes in the Walapai analysis, and I am especially grateful for the solutions to some of the problems which you have proposed.

This paper is an attempt to fill in some more of these holes. I will look at a number of problems that I previously had to shelve for lack of time.[1]

Accusative Subjects

Besides in equational sentences,[2] accusative subjects, i.e., subjects with no case suffix other than zero, occur in statements referring to particular events in opposition to statements of general truth or fact, whose subjects have the nominative suffix /-č/, and in middle or mediopassive constructions.

(1) há-č θapá-k # *Water freezes.*

(water-nom. freeze-3)
441 693

(2) há-ɲ θapá-k-yu # *The/That water is frozen.*
(water-that freeze-3-be)
421 693-702

(3) há-č θipá-m-ít-k-yu # *Water freezes.*

(water-nom. freeze-always-imperf.-3-be)
421 731-712-693-702

(4) há-ɲ θipá-m-ít-k-yu # *The water freezes.*

(water-that freeze-always-imperf.-3-be)
421 731-712-693-702

(1) and (2) were elicited by asking what happens to water in winter. The informant first gave (1), then rejected it. When asked how one would explain what happens to water in winter if one were explaining it to a child, the informant repeated (1) as appropriate and rejected (2) as inappropriate. (2) was explained as *what you would say if you were just talking to somebody*, but (1) is *a fact* or *just the way it is*. (1), then , is factive, i.e., a fact or general truth; (2) is non-factive or a report.[3] Note that (2), the non-factive, requires /-ɲ/, *that, the*, i.e., some par-

ticular water was meant---in this case, the water in the ditch beside the road. (3) is another instance of factive, and (4) of non-factive. Note the final /-k/ of (1). This would seem to be the third-person /-k/. If it is the mark of the factive, it is just the opposite of what Kendall reported for Yavapai since /-k/ is analyzed as non-factive and /-m/ as factive by her.[4]

(5) ɲâ sál hwák-t-m čì-č-qìát-à # *Both of my hands are cut.*

(my hand two-set-partitive caus.-caus.-cut-tns.)
445 342-342 661

The accusative subject in (5) is doubly marked since /sál/, *hand*, has a zero case ending and /hwáktm/ has the /-m/ suffix, the mark of the accusative partitive. Subjects of such middle or medio-passive verbs do not require the /-ɲ/. The /-t-/ of /hwáktm/ is discussed below in the section on inclusive and exclusive.

(6) ólò-ɲ ɲà hát-à sít-m hé-ɲ-qàrúr-k-m | sít-m hé-kyúl #

(horse my pet-the one-parti. tail-related-short-3-and one-parti. tail-long)
431 445 321 693-731 445

One of my horses has a short tail, and one has a long tail.

The first subject, /ólò/, *horse*, is doubly marked as accusative, and the accusative partitive is the pro-subject of the second clause. The sentence would be more literally translated *One of my horses is short-tailed, and one long-tailed.* This structure is used in many Walapai constructions where English would use *have*.

(7) kwâ-slók-v-ɲ há-ɲ-tàm-pír-v-k-yu # *The bucket is full of water.*

(metal-container-this-the water-related-pour-fill-here-3-be)
422-421 321 627-693-702

A more literal translation would be *The bucket is waterfilled.* Note the /-ɲ/ on the subject.

Inclusive and Exclusive

One of the uses of the partitive is to exclude the hearer from being included in plurals.

(8) ɲá-č kíŋmàn yám-č-ày-u # *We are going to Kingman.*

(1-nom. Kingman go-pl.fut.-be)
441 680-662-702

(9) ɲá-č hwák-θ-ìk kíŋmàn yàm-č-a-k-yu # *We are going to Kingman.*

(1-nom. two-only-partitive Kingman go-pl.-tns.-1-be)
441 443 681-676-693/691-702

(9) includes the hearer, but (8) excludes the hearer. The only meaning I could get from the informant for /-θ-/ was *only*. As noted earlier, /-θ-/

was reported by informants to occur with numerals only when referring to persons,[5] and /-t-/ seems to occur with numerals only when referring to things, including bodyparts. Crook has suggested that this /-t-/ means *the entire set.*[6] In (5), this certainly seems to be the case since the /-t-/ refers to *both of the hands of the speaker.* The /-θ-/ in (9) probably means *the entire group of persons.*

Negative and Directive Reversives

Negative reversive and *directive reversive* are terms I coined some years ago when working on Lingala, a Bantu languages; and the same sort of distinctions occur in Walapai marked by /-p/. Halpern has referred to these as *negatives* and *privatives.*[7] This morpheme contrasts in some environments with /-m/, but not in many others; and this has caused numerous difficulties in recognizing and identifying these morphemes.

/-p/ is a privative which is easily identifiable in a form like /pém/, *not have, be lacking/missing/in short supply/all gone, be absent/away.* It may not be so obvious from the translation; but /-p/ is a privative in /smápí/, *be sleepy*, and /kwè mápí/, *be hungry*, but it should be clear that these mean *lack/need sleep*, and *lack/need food*, respectively. /ɲâpá/, *night*, is /ɲá/, *sun, day*, plus privative /-p/ plus /-a/, *the*, i.e., *lacking sun, no sunlight.*

(10) há-č vá-pú-k-wi # *He arrived first./He arrived before I did.*

(3-nom. arrive-first-3-do)
441 623-693-701

It might be a bit difficult to see a privative in the /-p/ in (10), but the sense is *He arrived lacking (the speaker)(.)*, i.e., *previously, before(hand).*

(11) ɲá-ɲi-t-ó-p-m múna-m-ìč-k-yu # *When the sun goes down, it gets cool.*
(sun-related-?-not-privative-with cold/cool with/always-distrib.-3-be)
321-631-641-651-731 731-611-693-702

/ɲáɲitópm/ obviously means *when the sun is lacking/absent.* (I still have no satisfactory explanation for the /-t-/ (631) that occurs before the negative /-ó-/ (641), *be not.*[8])

(12) ɲà móɲà-č a-smá-ta-ó-p-t-m kwè kanáv-m év-yu #

(my Mom-nom.1-sleep-?-not-privative-imperf.-with tell-with hear-be)
441 331 631-641-651-712-731 731 702

Grandmother told me a story before I went to sleep.

(13) ɲi-θá-č kák vá-t-ó-p-t-m ɲá-č kwē má-m wí-č-a # *Before he comes, I always eat.*
(related-3-nom. not arrive-?-not-privative-imperf.-with 1-nom. thing
211 441 631-641-651-712-731 441

eat-with do-distrib.-tns.)
731 681-661

Anteriority of one action or state over another is very often indicated by marking the later state or action with /-p/. Such later actions or states nearly always translate into English as a subordinate clause with the conjunction *before*. (12) would more literally translate *I was lacking sleep/Sleep was absent from me, and I listened to my grandmother tell a story*. Likewise, (13) means *He lacks arriving/He arrives not yet, and I always eat(.)*, i.e., *Previous to/Before he arrives, I always eat*.

(14) ìčí má-t-ó-m wí-č-wi # *I don't eat fish.*

(fish eat-?-not-with do-distrib.-do)
631-641-731/652 611-701

(15) ìčí má-t-ó-p wí-č-wi # *I never eat fish.*

(fish eat-?-not-yet do-distrib.-do)
631-641-651 611-701

(16) hâltomín-m vá-t-ó-m-k-yu # *He doesn't come on Sundays.*

(Sunday-with arrive-?-not-with-3-be)
445 631-641-652-693-702

(17) hâltomín-m vá-t-ó-p-k-yu # *He never comes on Sundays.*

(Sunday-with arrive-?-not-yet-3-be)
445 631-641-651-693-702

Kendall suggests that the habitual-activity /-m/ suffixed to nominalized verbs in Yavapai is the same as the associative-adverbial-case-marking /-m/.[9] Walapai has parallel structures. In (14) this /-m/ is suffixed to an independent verb form followed by the primary-stressed main verb. Literally, (14) means *I do with not eating fish(.)*, i.e., *I don't usually/regularly eat fish*. In (15) the privative /-p/ indicates *the absence of the activity or state*, i.e., *has not yet/has never taken place*. Literally then, (15) means *I do not yet eat fish(.)*, i.e., *I never eat fish./I have never eaten fish*.

Thus, it would seem established that when stem-initial, negative reversive /-p/ means *lacking, not present*, when suffixed, *lacking yet, lacking previously/previous to*.

Besides the negative reversive meanings, there are also directive reversive meanings of /-p/, which mean *opposite direction, away from*. In this function, /-p/ is opposed by /-l/ (444), which I earlier described as *direction into or out of the inside of some point of reference*, or *location inside/within some point of reference*,[10] but I now believe that *from out of the inside* is not a meaning of /-l/. Again, recognition and analysis of these as a pair of morphemes has been difficult to see because contrasting environments seldom occur.

/pá/ means *go/come out/away, go/come up/over, pull/take out/up, grow out/up*; /pó/, *spill (out)*; /pú/, *die*, i.e., *go out from being/living*. Of course, /pú/ could be considered a negative reversive meaning *be absent from living*.[11]

(18) wá-m ɲá-č pá-k-m hát-ɑ-č hé či-wír-wír-wí-ɲ #

(house-from 1-nom. come-out-at-and dog-the-nom. tail caus.-wag-wag-do-
445 441 621-731 431-441 342 701

perf.) *When I come out of the house, the dog wags his tail.*
711

(19) ɲà ɲ-kwáy-l θèktí-v-l pés-a yó-k č-pá-č-wi #

(my related-clothes-in pocket-this-in money-the take-and caus.-pull-out-
211 444 422-444 431 732 342

distrib.-do) *I'm taking the money out of my pocket.*
611-701

(20) hát-à kÛptó-v-ɑ-l či-wó-k há-m či-č-pá-č-i #

(dog-the basket-this-the-in caus.-put-and that-from caus.-caus.-pull-
431 422-431-444 342 732 445 342-342

out-pl.-say) *We put the dog in a basket and pulled it out (of pit).*
681

(21) tát ɲ-i-č ɬúì-yìt tú hán či-pá-m-iú-č #

(cactus that-the-nom. hot-but/although very good caus.-come-out-with-be-
421-432-441 672 342 622-702

distrib.) *Cactus grows well even though it's hot.*
611

(22) cóq-m či-k-pá-k-yu # *I'm climbing a cedar tree.*

(cedar-with/along caus.-agent-climb-3-be)
445 342-311 693-702

(23) si-kó si-á-m-pɑ ɲi-si-á-m-č-ɑ-t-ó-p-m | wàksí-č há-m či-pá-m-č-ày-

fence gate close cow there go/come out
(caus.-hold caus.-move-away-out-the related-caus.-move-away-pl.-tns-?-
344 344 622-651-431 321-344 622-681-661-631-

k-wi # *If we don't close the gate, the cattle will get out.*

not-yet-and cow-nom. that-from caus.-go-out-away-pl.-fut.-3-be)
641-651-731 441 445 342 622-681-662-693-701

In each of the sentences (18) through (23), /pá/ means *go/come out from the inside of* or *make go/come out from the inside of* , except possibly (22). It seems that climbing a tree in Walapai is conceived of as *going up from the inside of a tree*, which is of course what one literally does when climbing a tree.

This, then is the difference between /-m/ (445)/(622), *location/movement from/not near point of reference*,and the directive reversive

/-p/ (651), *movement from out of the inside of point of reference*. /-p/, then, refers to a much more precise location than /-m/ since /-p/ means *from inside a particular location*, whereas /-m/ is much vaguer and means *away from the vicinity/general area*.

That /-m/ refers to a larger or more general area, and not just a point, can be seen in these sentences.[12]

(24) ɲá-m ɲa-yám-m lùí ú # *As I was walking down the road, I saw a snake.*

(road-along related-go-and snake see)
445 321 731

(25) hamáɲ-a-č ɲá-ɲ-m táy-k-yu # *The children were playing along the road.*

(child-the-nom. road-that/the-abl. play-pl.-3-be)
431-441 421-445 693-702

(/táy/, *play*, is plural; the singular is /té/.)

(26) wá-kwáč-a-r. e-sevkó # *I built a fence around the house.*

(house-side-the-along/around 1-fence)
431-445 331

Sometimes /-p/ seems to be just an intensifier like English *up* or *down*. /vìθɲáɲ/ means *squat, stoop*; /vìθɲáp/ means *squat/stoop down low*. /θìkóm/ means *break, crack, break in two*; /θìkómp/ means *break up, break to pieces, shatter*. It would seem that /-p/ in these uses has undergone a similar referent-range extension to English *up* and *down*, but even here the meaning *away from usual position/condition* can be seen.

/sìámí/, *lid, cover, door, gate*, contains /si-/ (344) *cause to move/be along side/next to*, /á-/, *move*, /-m/, *with/along/around the vicinity of*, and/-ì/, the instrument suffix. It literally means *a causer-to-move-around/along side*, i.e., *a coverer, a closer*. Compare /sìámí/ with the similar forms in (27) and (28).

(27) sì-á-p-ó vi-té wó-k-č-ó-k kwê-v-yám há-m yám-a-yìt či-vlwí-k

gateway automobile
(caus.-move-lack-place very-much make-to-pl.-benef.-and thing-very-go
344 651-810 121 621-681-626-732 321

yó-v-č-a # *We made a gate big enough for a car to go through.*

that-from go-tns.-intend caus.-measure/surpass-and make-here-pl.-tns.)
445 661-672 342 732 627-681-661

(28) sì-á-m-ó sì-á-m-č-im wí-č-m wí-č ólò-č yút-ik či-pá-im-ày-m #

gate clos horse go/come out
(caus.-move-away-place caus.-move-pl.-and do-distrib.-and do-pl. horse-
344 622-810 681-731 611-731 681

nom. come-and caus.-go/come-out-away-fut.-with) *We keep the gate closed so the horses can't get out.*
441 732 342 622-662-731

In (27) /sìápó/ has the /-ó/ (810) suffix meaning *place where verbing performed/place where located* and refers to *an opening in a fence large enough for an automobile to pass through*. /-p/ here is a privative and means *a place where a causer-to-move-along-side is lacking*, i.e., *a gap, gateway, doorway*. In (28) /sìámó/ refers to *a movable gate that can be closed (or opened)*. Thus, /sìámó/ means *a place with a causer-to-move-along-side/next-to*, i.e., *a gate/door which can be closed.*

(29) wá-ɲ si-á-m-we # *I closed the door.*

(house-that caus.-move-around-tns.-do)
421 344 622-661-701

(30) wá-ɲ sì-á-m-p-a-k-yu # *The door is closed.*

(house-that caus.-move-around-away-3-be)
421 344 622-651-693-702

Note that /wá/, *house*, is used in (29) and (30). The meaning here is that *The house is closed(.)*, i.e., *The door is used for closing the house.*

The /-m/ and /-p/ also occur in agent nouns with /ki-/ (311) with the same meanings. It should be remembered that such agent constructions in Walapai often function very much like adjective relative clauses in English.[13]

(31) wí ki-á-m-p-ɑ # *mountain range, ridge of mountain peaks*

(rock agent-go/move-along-away-the)
311 622-651-431

(32) yá-m ɲá ki-á-m-p-ɑ-č hàvsú-ɑ-l vá-v-m-ik-yu # *From here the road goes to Supai.*
(this-from road agent-go-along-away-the-nom. Supai-the-to arrive-this-
445 311 622-651-431-441 431-444 627

along-3-be)
622-693-702

/wí/ means *rock, stone, rocky canyon/cliff/mountain*. In (31) and (32) the agent noun /kiámpa/ describes two features of the landscape around Peach Springs, Arizona. In both cases, it describes something that *starts at a specific place and goes off into the distance.*

Thus, it would seem clear that /-p/ also has the directive reversive meanings *out of/away from some precise location/point.*

FOOTNOTES

1. In order to keep this article to manageable size, I must assume that the reader has at least some acquaintance with a Yuman language, such as my article in IJAL 32:2:141-163, Apr.66. The numbering system for the morphemes is taken from this article.

2. Redden, op.cit., p.160.

3. Kendall, IJAL 41:1:7-9, Jan.75.

4. Kendall, loc.cit.

5. Redden, loc.cit.

6. Crook, this volume.

7. Professor Abraham Halpern presented an oral paper on Yuma at this workshop, but was unable to prepare a paper for this volume before it went to press. In the presentation, he discussed negatives meaning *not* and privatives meaning *opposite of* or *not so*.

8. Redden, op.cit., pp.153-154.

9. Kendall, op.cit., p.6. I suggested this earlier; see Redden, op.cit., p.158.

10. Redden, op.cit., pp.160-161.

11. For a discussion of what *root* and *stem* mean, see Redden op.cit., pp. 144-148. Also, I am preparing a paper on etymology and root structure for the 1976 Hokan-Yuman conference, which will no doubt be published in the proceedings of the conference.

12. Kendall makes a similar point for Yavapai and suggests that /-m/ might mean *in association with* in sentences like these. See Kendall op.cit., pp-2-3.

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SOME NOTES ON PAIPAI OBJECT ORDER AND OBJECT-MARKING

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The presence of an object case suffix (-?) in Paipai is interesting because no such suffix, unless it be zero, occurs in those Yuman languages most closely related to Paipai (see Langdon, 1972). Indeed, it is absent in all other Yuman languages except Kiliwa. Objects (O) in Paipai sentences may take the form of nouns or noun phrases, verb prefixes, pronouns, and demonstratives. This presentation does not deal with the last two categories which are set forth in Joël, 1966. Inflectional verb prefixes in Yuman languages are well known; see, for example, Langdon and Hinton (in press). The brief presentation which follows deals with:

1. Direct object (DO) and indirect object (IO) order
2. Object-marking
2.1. With different subject (DS) suffix -m
2.2. Unmarked objects as thematic verb prefixes
2.3. Marked O-ha-? objects vs. unmarked O-ha objects
3. Summary

All illustrations come from text unless otherwise indicated.[1]

1. Direct objects stand before the verb (V) and appear both with and without object-marking. In the examples which follow, (6) through (9) are marked with objective case suffix -?:

(1) xëlpu ?-yo:v 'I make carrying bags'
carrying=bag 1-make

(2) ?xa čëya:w 'they obtained water'
water get=pl

(3) mëvši-ha tëšyeč 'they approached the woman'
woman-the approach=pl

(4) tëyu:č-ha pa:-xe:kč 'they sent (here) for the kin'
kinfolk-the PO-send=for=pl

(5) tëñur-ya ñi-?e:kč 'they sent me this letter'
letter-this 3/1-send=pl

(6) kxo-ha-? ?-këwi:k 'I sell the piñon (nuts)'
piñon-the-0 1-sell

(7) ča:mpuy-ha-? ?-č?ev-tem 'we didn't feel hunger'
hunger=pl-the-0 1-feel=pl-not

(8) ñixay-ya-? të?ol 'one cooks this juice'
juice-this-0 cook

(9) nëya:m ?xa-? čë?u: 'they went to see (the) water'
go=pl water-0 see=pl

Instances like (9), with the object marker attached directly to the noun stem, are exceedingly rare in text (only four cases out of over 300 object nouns).

In dual-object sentences--that is, sentences with both direct and indirect objects--the normal or neutral order is (S +) DO + IO-V, with the IO actualized in the verb prefix complex:

(10) tëršček ñi-?e:č 'they gave me work'
work 3/1-give=pl

(11) čalxač me-?e:č-m 'they'll give you medicine'
medicine 3/2-give=pl-DS

(12) mat-ha pa:viñ-suma:w-m 'he lent us the land'
land-the 3/us-lend-DS

Occasionally the IO stands outside the verb in addition. Normal order is then DO + IO + IO-V:

(13) tëñur-ya gwa:quwi:-ha(-?) më-?e:k ?ik '"give
letter-this cattle=owner-the(-0) 2-give say
this letter to the cattle-owner," he said'

(14) xëlkwa-ha-? xëmakipa:-ha-? më-?e:k 'you gave
carrying=bag-the-0 'La=Gringa'-the-0 2-give
the carrying bag to the North American lady' (This example comes from direct eliciting; text occurrences of dual-object sentences seldom have such a full complement of noun suffixes.)

When the IO is 3rd person singular, the IO-marking in the verb is zero:

(15) kos ya:v-ha-? ?e:č-tem 'they didn't give her the key'
not key-the-0 give=pl-not

If the IO is not clear from the context, it may stand outside the verb:

(16) čipa:y-ha-? Hi:lberto soma:w 'he lent Gil. the animals'
animal-the-0 Gilberto lend

With a plural 3rd person IO, the plural object prefix (pa:-) may adequately actualize the IO in the verb (as in the last verb of the following sentence):

(17) pa:-Y ñi-ra:v-m pa:-?u:k čalxač pa:-?e:k
people-S when-sick-DS PO-look=at medicine PO-give
'When people get sick, he looks at them and gives them medicine.'

When the IO stands outside the verb, unless it is a 3rd person singular, it is already topicalized to a degree, since otherwise the IO is simply expressed through verb prefixes. It is not surprising,

therefore, that the free-standing IO usually appears before the DO or, rarely, following the verb—both of which positions mark the IO for special emphasis. Topicalization of the IO puts it before the DO:

(18) xëma:ñ-xkay-ha-? pantalon-kamis-te:-oli-m pa:-?e:č
children-other-the-0 pants-shirts-lots-very-DS PO-give=pl
'to the other kids they gave lots of clothing'

(19) xëme?wi:-ha kamis xëmuk-m ?e:č 'they only gave my
my=boy-the shirt three-DS give=pl
boy three shirts'

Rarely, the IO is repeated following the verb, probably for clarity's sake:

(20) kwa:w-qëlyev pa:-čëčxwil ñi?yak-nëya:m-ha 'they cursed
word-bad PO-throw=pl here-go=pl-the
those who went from here'

(21) xëma:ñčiču ñisa-? pa:-kuwi:č xëma:ñ-ha
baby=bottle these-0 PO-distribute=pl children-the
pa:yt-m 'they distributed nursers to all the children'
all-DS

There are only two instances, both from direct eliciting, of IO + (IO-)V + DO:

(22) ñe?či më-?e:k xëlkwa-ha-? 'you gave the carry-
my=mother 2-give carrying=bag-the-0
ing bag to my mother'

(23) ñe-Y ksye:-ha-? ?e-?e:k tëñur 'I gave the letter to
I-S doctor-the-0 1-give letter
the doctor'

Examples (22) and (23) represent acceptable order which, however, is not employed in text. (See section 2.3, however, for examples of DO following the verb in sentences with no IO.)

The topicalized IO may be followed by an object-marked demonstrative--as may also the DO, see (21) above:

(24) xëma:ñkëčkas-ha ñi?sa-? qwa:qñimay pa:-kuwi:č
small=children-the they-0 (cow=)milk PO-distribute=pl
'to the little children they distribute milk'

In (24) the object-marking which is missing on the noun is supplied on the demonstrative which stands for the noun. It would be nice to be able to say that this is generally true wherever object nouns lack the object case suffix, but alas, it is only sometimes true.

2. Of the over 300 text occurrences of object nouns that carry an articular suffix (nearly always -ha 'the', but sometimes -ya 'this' or -ñu 'this here') approximately two-thirds are marked by the object case suffix -ʔ. Before examining the variation between marked and unmarked objects, it should be noted that there is another way of marking an object as such.

2.1 Objects may be marked by means of the DS suffix -m attached to a qualifying verb following or substituting for the noun in question:

(25) va:m kos te:-m čʷwo:č-tem 'this season they didn't
now not much-DS plant=pl-not
plant much'

(26) xʷma:ñ-ka?te:-ha-Y ?te:-ra:v-m čʷya:w 'large
children-which=are=many-the-S much-more-DS get=pl
families get much more'

(27) xte-ha qʷrye:-m ?-čʷya:w 'we take the cleaned tuna
tuna-the clean-DS 1-take=pl
(fruits)'

(28) waparaw pa:-kʷ-kʷmi:č-ha-Y pa:yt-m ñi?yak
car PO-which-bring=pl-the-S all-DS here
pa:-nʷmak 'the car which had brought them left them all here'
PO-leave

(29) bu:r xʷwa:k-m ča:wa:m ?šit-m xokye:wč ?šit-m
burro two-DS take=pl one-DS load=pl one-DS
ča:čʷwač 'they took two burros; one they packed and the
ride=pl
other they rode'

The assumption of object-marking functions by the DS suffix appears to be a spreading process in Paipai: e.g., from (N + V_1-m) + V_2 to V_1-m + V_2. This use of DS -m reminds one that Kiliwa--the only other Yuman language that has an object case suffix, and a close geographical neighbor of Paipai--uses -m for its object case suffix.

2.2 Now it remains to discuss the variation between marked and unmarked objects. The difference between a "naked" object and one with an articular suffix is mostly a matter of semantics and style. In some cases the naked object is being introduced to the story for the first time and will in all subsequent instances carry an articular suffix. In some cases, the variation corresponds to the difference between a general statement and a statement about specific occasions and events. To a degree, then, the variation between zero and -ha(-) is predictable.

Often the naked object is closer to the following verb, and it may be translated by the Paipai speaker as part of the verb. There are certain naked object plus verb combinations that recur frequently, for example:

(30) ñimay-lësik < ñimay 'milk', lësik 'to squeeze out moisture'
to=milk(cow)

(Spanish colar)

(31) yi:ma:-yo:v < yi:ma: 'dance', yo:v 'to make'
to=put=on=a=dance

(32) čiči-čačxwil < čiči 'mother', čačxwil 'to throw re-
to=curse=someone=out

peatedly at someone' (This is a literal Paipai translation of the Spanish figure of speech they use to refer to cursing someone out with obscene insults.)

(33) ?xa-?e:k < ?xa 'water', ?e:k 'to give'
irrigate(field)

The combination illustrated in (33) occurs several times with the additional object čëwo 'field':

(34)	čëwo-ha-?	?xa	?e:k	?am	'he was irrigating the
	field-the-0	water	give	go=around	

field'

At first glance, (34) appears to be IO + DO + V. It is more likely, however, that ?xa + ?e:k has become a verb ('to irrigate') and that čëwo is then actually a DO, since why topicalize the fields one regularly waters? (The Paipai, in fact, often use the Spanish verb regar to translate ?xa + ?e:k, which suggests such a reanalysis.)

It is surely by a like process that many Paipai verbs have been formed: a naked object immediately preceding the verb becomes attached to the verb as a thematic prefix--one that lends semantic content to the verb. There are many Paipai verbs which can easily be analyzed this way, for example: ña:-šma:k 'get lost' (ña: 'road, trail', and cf. šme:k 'to seek'), mi:-ši:k 'to track' (mi: 'foot', and cf. ši:v 'to count').

While it is not the subject of this presentation, it is worth noting that the process of attaching objects—including "dummy" objects and elements expressing various object notions and relations—to the front of the verb seems to be a widespread process in Paipai. The frequently and productively employed dummy object prefix ča(:)- may perhaps be traced in such a verb as čqëlye: 'give one the creeps' (qëlye: 'bad, nasty'). There are several pairs of Paipai verbs partially analagous to that one, for example: ča?ut 'to dump on someone' (?ut 'to dump'), čapoq 'to befall someone' (poq 'fall; throw, pour'), ča:wak 'be mounted on animal' (wak 'to be [in sedentary state]').

2.3 The variation between 0-ha-? and 0-ha does not appear to be predictable, but certain statements can be made about it. The marked objects are twice as frequent as the unmarked objects in text. Phonetic environment is not a factor, nor is the meaning of the object (e.g., animate objects are just as likely to be unmarked as inanimates).

Also not relevant is the presence or absence of any of the several object-like verb prefixes or the plural object prefix. Whether the subject is animate or not is irrelevant. Subject person is probably irrelevant (although 0-ha-ʔ is somewhat more common than 0-ha with 1st person subjects). Words or phrases that may appear between the object & the verb do not appear to affect the variation. Negation, interrogation, and direct discourse were considered and ruled out on the basis of the corpus at hand. The unmarked object is somewhat more likely than the marked object to be followed by an -m-marked qualifier.

Only one factor was found that made a real difference: position. The marked object is far more frequent in post-verb and sentence-final position (24% of all occurrences of 0-ha-ʔ, versus only 8% of all occurrences of 0-ha, follow the verb). In view of what has been said in earlier sections about order, this looks like a matter of emphasis. All post-verb noun DOs are of course 3rd person, otherwise they would be pronouns. Two-thirds of them are singular, which is suggestive since 3rd person objects—certainly 3rd person singular objects— are not indicated by verb prefixes, and thus may require special treatment. A predicate with a 3rd person singular object is no different in the case of most verbs from the same predicate with no object: e.g., ʔu: 'he looks, sees (or) he looks at him, he sees him', ʔuʔu: 'I look, see (or) I look at him, I see him'.

Occurrences of post-verb DOs are illustrated below:

(35) Lugarda sal ñi-xa:v mëvši:-ha-Y vëra:r
Lugarda in=there when-enter women-the-S stand=up

këna:vč Lugard-ha-ʔ 'When Lugarda entered there,
embrace(her)=pl Lugarda-the-0

the women rose and greeted her.'

(36) ña?pa:yëm nëtëmak xwa:n pa:ra:w ʔi?ipsi:-tu:v-
and=then leave=off=pl Juan run brush-middle-

-ha-m mirmir xa:v xëma:r-ha-Y pa:yt-k
-the-thither straight enter youths-the-S all-SS

č?u: xwa:n-ha-ʔ 'Then they left off (fighting). Juan
see(him) Juan-the-0

took off and ran straight into the middle of the brush. The youths all saw him.'

(37) pa:yëm ñe?či pa:-mëše:kukwa-ha ñi?sa-ʔ Benito
and=then my=mother PO-express=fear-the this-0 Benito

ku:na:vu čkwar-oli-k ka:vu:m më-mše: ksye:-
tell(him) laugh-very-SS how=is=it 2-fear(him) doctor-

-ha-ʔ ʔi-k čkwika 'Then I told Benito that my mo-
-the-0 say-SS ask(her)

ther was afraid (of them). He laughed hard. "Why are you afraid of the doctor" he asked her.'

3. In summary, Paipai object nouns—both direct and indirect—may be marked by object case suffix -ʔ or unmarked. The rules governing the variation are not clear yet, but unmarked objects which also lack an articular suffix may sometimes be on their way to becoming thematic verb prefixes. Object nouns which carry an articular suffix are more apt to carry the object case suffix than not. Object nouns in post-verb position—a position of emphasis—are far more likely to have an object marker. Whether objects are marked with the case suffix -ʔ or not, they may be marked as objects by the different subject suffix -m on a qualifying verb which follows or substitutes for them.

Notes

1. The orthography employs: ʔ for glottal stop, ə̆ for schwa and all other non-phonemic breve vowels. -Y is the subject case noun suffix (pronunciation varies but is often that of a voiceless, slightly noisy [y]). Other symbols have their usual values.

Abreviations employed are: PO = plural object (a verb prefix), S = subject or subject case suffix, O = object or object case suffix, DS = different subject (a verb suffix sometimes termed a switch referent marker), SS = same subject (verb suffix).

Verbs are singular or indifferent as to subject number unless marked plural (=pl); both subject and object person are indicated in verb object prefixes (e.g., 3/1 = 3rd person subject and 1st person object).

Vowel length is variable in many morphemes, always long in some, always short in others. Following Langdon's (in press) hypothesis that the first category represents conditioned variants of the second, only two degrees of vowel length are distinguished here: short (e.g. vok, phonetically [bɔk] 'rain'), and long (e.g. so:k 'one eats meat') plus variable (e.g. yo:k 'one picks up').

Breve vowels are always unstressed and although not phonemic, are included to indicate syllabic composition of words (an exception is verb-final DS suffix -m, which is usually syllabic, but is written here only as -m.

Illustrations are presented in a modified phonemic transcription; the main modifications relate to vowel length and stress (the phonemics of which are in question), breve vowels as noted above, and a glottal stop which appears and disappears in certain words (e.g., ʔxa ~ xa 'water').

NOTES ON THE INTERPRETATION OF /-m/ AND /-k/ IN WALAPAI

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0. The occurrences of /-m/ and /-k/ and their interpretations in Yavapai and in Upland Yuman languages in general are discussed by Martha B. Kendall (1975). As a first approximation, /-m/ and /-k/ are explained as having some general meaning indicating physical or psychological directions; namely, /-k/ indicates a direction toward a point of reference and /-m/ a motion away from a point of reference. This brief note concentrates on a specific use of these case markers, particularly their use in simplex sentences. I will not, therefore, directly deal with the phenomenon known as the 'switch-reference' (Langdon 1970). In the following sections I present examples from Walapai to show whether or not the Kendallian type of explanation about these case markers is appropriate for Walapai as well.

1. Kendall observes that in Yavapai the case marker /-m/ occurs with "those constructions describing events or states having existential reality outside of the speaker or at a distance from him" (1975: 8). Thus she sees the connection between the occurrence of /-m/ and the 'factive' construction. Such 'factive' constructions with /-m/ are called allocentric statements. The explanation of /-k/ is, on the other hand, egocentric in that it occurs with "non-factive construction, purposive and explanatory constructions" and all of these "have in common a speaker-centered semantic force" (1975: 8). The same observation seems to apply to sentences in Walapai.

1) a. qwara-hak-aam-l n̄a-č ha-ča 'yaak-k
Diamond Creek-l I-Subj water-Loc I-lie-k
"I swim in the Diamond Creek River."

b. qwara-hak-aam-l n̄a-č ha-ča 'yaak-m

2) a. čon-m 'hwaak-k 'reev-č-yu-k
John-with two-k I-play-pl-BE-k
"I play with John together."

b. čon-m 'hwaak-k 'reev-č-yu-m

3) a. čon-č meri-m hwaak-k reev-č-yu-k
"John plays with Mary together."

b. čon-č meri-m hwaak-k reev-č-yu-m

4) a. n̄aavl-wiiv-m čon-č kwekiviyaam qowaam-k
noon-m automobile drive-k
"John drives a car at noon."

b. n̄aavl-wiiv-m čon-č kwekiviyaam qowaam-m

5) a. čon-č qowaaq keyaa-k
John-Subj deer shoot-k
"John shoots a deer."

b. čon-č qowaaq keyaa-m

For the group a. in above sentences, the speakers of Walapai, in an attempt to explain to me the differences between a. and b., add that they carry the implication of "and that's true, and that's what I am telling you, or and you had better believe it." On the other hand, the sentences in the b. group do not carry the same semantic force, but rather they seem to be uttered as 'matter-of-fact' events or at least the speaker is not commiting himself to the truth of the utterances. This type of phenomenon is by no means strange or unique. Similar distinctions of reportatives vs. non-reportatives are wide spread in Turkish, for example. The above examples seem to show that the /-k/ marker in the simplex sentences is a syntactic device to show that the speaker is asserting and commited to what he has said. We may call this a 'commital' statement; while the /-m/ marker in the simplex sentences is a syntactic device to show the 'non-commital' or 'detached' statement in that the speaker is merely stating the fact without commiting himself to the truth of the statement.

2. The occurrences of these case markers, however, are not as clear as the above sections might suggest. Observe:

6) a. yapaa-m kwekiviyaam qowaam-m misieev-k
night-m car drive-m dangerous-k
"Driving a car at night is dangerous."

b.*yapaa-m kwekiviyaam qowaam-m misieev-m

Here it is not very clear why sentence b. is unacceptable. We may guess from the following examples 7) and 8) that the unacceptability of /-m/ in sentence 6)b. might have something to do with the predicate itself, namely the occurrences of /-k/ and /-m/ are allowed in the regular verbal forms but not in the predicate adjectives. Observe:

7) a. čon-č kula keyaa-m 'tiee-k
I-happy-k
"John's shooting a rabbit made me happy."

b.?čon-č kula keyaa-m 'tiee-m

8) a. makañaa-m čon-č kula keyaa-m 'tiee-k
yesterday-m
"Yesterday's John's shooting a rabbit made me happy."

b.?makañaa-m čon-č kula keyaa-m 'tiee-m

In these cases, the final elements are both predicate adjectives. In my data, I find the following sentence in which the last element is a predicate adjective, at least in the English translation.

9) svoov-m wayoov-m (but *-k)
wait-m boring-m
"Waiting is boring."

The element /wayoov/ may in fact be a regular verb in Walapai which must be checked at a next visit to Peach Springs. There are some other cases, though the sentences presented here are not simplex, in which only one case marker is allowed to be used.

10) ña miiv raav-m (or -k) wayyi-m tokoohv-k yuu-č-m (but *-k)
I foot hurt-m (or -k) chair-Inst bump-k BE-č-m
"My foot hurts because I bumped into a chair."

11) ña miiv wayyia qato-k wii-č-m (but *-k)
kick-k
"I kicked a chair with my foot."

It may be argued that the reason why /-k/ is not permitted is because the sentences express the habitual events which are not influenced by the speaker's assertion but rather those habitual events are more or less known to the individuals in the speech community, and so those events have existential reality outside of the speaker.

3. Kenneth Hale (personal communication) has pointed out that in Papago same kind of case markers are used in certain adverbial forms or verbal constructions which have something to do with the temporal notion. M. Kendall (personal communication) also noted the same phenomenon in Yavapai. According to them, the time adverbials such as 'in the morning,' 'at dawn' may be marked with /-k/, while 'in the afternoon,' 'in the evening' will be marked with /-m/. However, in Walapai, all these time adverbials including 'yesterday,' 'today,' 'tomorrow' are always marked with /-m/ when occurring in sentences. In verbal constructions such as '(the sun's) rising or sinking', Yavapai shows consistent use of /-k/ and /-m/ respectively so that we may be able to state that the markers /-k/ and /-m/ are the part of the verbal form and together they are lexicalized. This is also pointed out to me by Margaret Langdon (personal communication). Again in Walapai, the occurrences of /-k/ and /-m/ in similar constructions do not seem consistent. At this stage of the investigation, it seems safer to apply the explanation of 'commital' vs. 'detached' statements to these sentences, while it is possible to explain the similar phenomenon in other Upland Yuman languages stating that the reference point is the midst of the sky, and that anytime before that point is represented by the use of /-k/ and anytime after that point by /-m/ (taking the middle of the sky as the reference point). Sentences 12) - 14) show regularity, i.e. the consistent uses of /-k/ and /-m/ as they should be used. Sentence 15) does not cause any problem since the sun in the middle of the sky may be interpreted either way -- toward the middle of the sky or away from the middle. However, sentence 16) is not marked by either one of the case markers. Now observe:

12) n̄aa č'al-k yuu-k
sun rise-k BE-k
"The sun is soon to come up."

13) n̄aa č'al-k
"The sun is up in the sky."

14) n̄aa-č miyaav-k vawaaq-k
go up-k be in the sky-k
"The sun is in the sky."

15) n̄aa viwiiv-k (or -m)
be in the middle-k (or -m)
"The sun is in the middle."

16) n̄aa toop
sink
"The sun goes down."

Sentences 17) and 18) are marked by the incorrect case marker /-k/ and so is sentence 19) in which the /-m/ instead of /-k/ is used.

17) tuučv n̄aa toop-ay-k
almost
"The sun is about to go down."

18) n̄aa toop-k
"The sun is going down."

19) n̄aa č'al-m
"The sun is barely up."

4. In sum, the principle of egocentricity and allocentricity seems to work in Walapai. In simplex sentences, the /-k/ marker is the syntactic device to indicate the speaker's assertion or commitment, while the /-m/ marker represents the 'detached' statement. In some constructions, however, Walapai shows inconsistency which leaves with the investigator some questions to be solved: is Walapai undergoing a rapid linguistic change to the degree that some parts of the grammar must be left indeterminant?; are the speakers who supplied me with the data either not-fluent speakers or giving me unreliable data?; or is the approach I am taking altogether incorrect?

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